

Southern California Wetlands Recovery Project

WRP Work Plan Project Descriptions

Tijuana River Estuary and Watershed Program

- Dairy Mart Ponds Restoration
- Tijuana River Valley Invasive Plant Control Program
- Goat Canyon Enhancement Project
- Tijuana Estuary Tidal Restoration Program - Phase II

1. Goat Canyon Enhancement Project

Date Funded: 1/02

Local Lead: Southwest Wetlands Interpretive Association

Tier 1

SCC Project Manager: Jim King, 510-286-4167, jking@scc.ca.gov

Construct sediment retention basins in Goat Canyon adjacent to the creek and restore riparian habitat in the project vicinity. The project will reduce sediment flows to the southern arm of Tijuana Estuary. Project construction will be restricted from September 15 to March 1 to protect the least Bell's vireo, and will be administered by California State Parks.

Goat Canyon Creek is the westernmost tributary to the Tijuana River and it flows through the south arm of the estuary. 90% of the Goat Canyon watershed is located in Mexico. The watershed is characterized by steep, highly erodible slopes; rapid development; and concrete-lined stream channels. These conditions contribute to high sediment loads in Goat Canyon Creek which are degrading the downstream estuary. In August 2003, the Conservancy authorized \$208,000 for feasibility studies and design plans for an erosion control and stormwater management program for Los Laureles Canyon, the Mexican portion of the watershed.

Status: The project is currently scheduled to begin construction in the Fall of 2003, and will take approximately 4 years to complete.

Estimated cost: \$8,405,700

Funding:	SCC-Wetlands Recovery Project	\$5,000,000
	Wildlife Conservation Board	\$1,800,000
	California Department of Parks and Recreation	\$1,200,000
	National Oceanographic and Atmospheric Admin.	\$300,000
	City of San Diego	\$105,700

Last updated: 8/26/2003

2. Tijuana Estuary Tidal Restoration Program - Phase II

Date Funded: 4/01

Local Lead: Southwest Wetlands Interpretive Association

Tier 1

SCC Project Manager: Jim King, 510-286-4167, jking@scc.ca.gov

Conduct pre-project feasibility and design studies for the next phase of the Tijuana Estuary (Friendship Marsh) Tidal Restoration Program (TETRP). It is anticipated that the investigation will produce a comprehensive restoration plan identifying a series of restoration projects to be implemented in phases. The assessment includes the following components: 1) analyzing the hydrologic issues identified in TETRP as needing further examination; 2) assessing the feasibility of integrating a beach nourishment element into the project design; and 3) preparing preliminary restoration plans for the projects that would be implemented. Project planning is being overseen by the Tijuana Estuary Management Authority, a Technical Advisory Committee created for the project, Coastal Conservancy, and U.S. EPA staff.

Status: Project planning is underway and is expected to be completed in Spring 2005.

Estimated cost: \$1,199,000

Funding:	SCC-Wetlands Recovery Project	\$450,000
	U.S. Environmental Protection Agency	\$208,000
	Coastal Conservancy (Prop. 13)	\$541,000

Cost Notes: Cost estimate is preliminary.

Last updated: 8/26/2003

3. Dairy Mart Ponds Restoration

Local Lead: County of San Diego, Department of Parks and Recreation **Tier** Incubator

SCC Project Manager: Jim King, 510-286-4167, jking@scc.ca.gov

Prepare CEQA documents, engineering plans, and implement restoration of the Dairy Mart Ponds in the Tijuana River Valley. The Dairy Mart Ponds encompass approximately 60 acres in the floodplain of the Tijuana River, with about 10 acres actually in the floodway. The ponds are surrounded by a mixture of thriving and distressed willow riparian and mulefat scrub, interspersed with invasive and exotic plant species. The property includes designated critical habitat for the Least Bell's Vireo and Southwest Willow Flycatcher, and is part of the City of San Diego's MSCP Subarea Plan. 260 species of birds have been reported to use the site, including the only known heronry in San Diego County. The site was recently transferred from WCB to the County.

Over the years, the amount of water flowing into the Dairy Mart Ponds has decreased. As a result, during drought periods, the ponds dry out and the wetland habitat dies. When this occurs, the amount and variety of bird species found on the property decreases dramatically. The County is preparing a feasibility study to determine the practicability of using reclaimed water to increase the water levels in the ponds. If the study finds that this approach is feasible, this project will prepare engineering and CEQA documents, install the reclaimed water pipelines, fill the ponds, remove exotic species from approximately 15 acres of riparian habitat, and install walking trails and interpretive signs around the ponds.

Status: New Project

Estimated cost: \$1,050,000

Funding:	SCC-Wetlands Recovery Project	TBD
	California Department of Fish and Game	\$100,000
	County of San Diego	\$115,000

Cost Notes: The cost estimate is very rough.

Last updated: 8/18/2003

4. Tijuana River Valley Invasive Plant Control Program **Date Funded:** 6/01

Local Lead: Southwest Wetlands Interpretive Association **Tier** 2

SCC Project Manager: Jim King, 510-286-4167, jking@scc.ca.gov

Develop a watershed-wide invasive plant control plan in the Tijuana River Valley, and implement the first phase of exotics removal. With the support of public agency landowners, the program will eventually restore the entire Tijuana River Valley by treating hundreds of acres of Arundo, castor bean, and salt cedar. The first phase of the project will establish the interagency cooperation, complete permitting, and prepare site plans to remove exotics from an initial 10-15 acres at three sites. The average cost of removal of the most dense Arundo and castor bean thickets, and essential monitoring and follow-up is estimated at about \$40,000/acre. Treatment will be timed to avoid the breeding season of the least Bell's vireo.

The proposed eradication project will greatly enhance riparian habitat function and will protect the area from future degradation caused by continued expansion of Arundo, castor bean and several other species. If nothing is done, exotics species, particularly Arundo and castor bean, will continue to displace native vegetation until only degraded habitat remains. The Tijuana River Valley is designated as critical habitat by the Fish and Wildlife Service for two riparian wetland-dependent

endangered species: least Bell's vireo and southwestern willow flycatcher. Most of the Tijuana River Valley is now in public ownership of the Fish and Wildlife Service, California Dept. of Parks and Recreation, San Diego County Parks, and the City of San Diego.

Status: Treatment at the first sites will begin in September 2003 and should be complete in early 2004.

Estimated cost: \$560,000

Funding: SCC-Wetlands Recovery Project \$500,000
USFWS-Coastal Program Grant \$60,000

Cost Notes: Cost estimates are preliminary. USFWS funding would be for a part-time project manager for two years.

Last updated: 8/26/2003

5. Famosa Slough Culvert Extension and Retrofit Design **Date Funded:** 12/01

Local Lead: City of San Diego **Tier** 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Prepare feasibility study and design plans to reactivate an inoperable culvert between Famosa Channel and Famosa Slough to increase the tidal prism in the slough. Famosa Slough and Channel are currently connected by a 48-inch pipe culvert, and twin 4-foot by 6-foot box culverts. A second 48-inch culvert is inoperable because its south end is plugged with concrete, and the north end is buried under West Point Loma Blvd. Restoration of this culvert is the next priority identified in the 1993 Famosa Slough Enhancement Plan. The feasibility study to reactivate the culvert was completed in February 2001. The City is currently preparing final design and engineering plans for the project.

Reactivation of the culvert will improve tidal circulation in the slough. Assuming an average of two additional horizontal feet in tidal inundation around the perimeter of the slough (excluding the northern channel), there will be an increase in wetlands of about 1/6 acre. Other projects identified in the enhancement plan are contingent on implementation of this project.

Status: The environmental review and final design stage should be completed by spring 2004. Construction is estimated to cost \$40,000, and is expected to begin in late 2004.

Estimated cost: \$82,500

Funding: SCC-Wetlands Recovery Project \$82,500

Cost Notes: Two previous projects from the Famosa Slough Enhancement Plan have been implemented with local and federal funding, totaling approximately \$540,000.

Last updated: 8/18/2003

6. Lower Rose Creek Watershed Assessment **Date Funded:** 8/03

Local Lead: San Diego EarthWorks **Tier** 2

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Prepare an assessment of existing conditions, and opportunities and constraints for habitat protection, habitat restoration, and public access improvements in lower Rose Creek watershed. The major elements of the watershed assessment will be: 1) compilation of existing information about the watershed (below MCAS Miramar) and identification of gaps in information; 2) identification of current management practices in the watershed; 3) analysis of the general hydrology of the watershed; 4) mapping of exotic plant species; 5) identification of habitat restoration opportunities; and 6) identification of public access/trail opportunities. The watershed assessment will be the first phase of a larger planning process for protection and restoration of the watershed. Planning efforts will be coordinated with MCAS Miramar's planning for the upper watershed as well with the Mission Bay and Marian Bear Memorial Park management plans. San Diego EarthWorks, a nonprofit organization, will undertake the project in partnership with the City of

San Diego.

Status: The assessment will begin in September 2003 and should be completed by Fall 2005.

Estimated cost: \$282,300

Funding: SCC-Wetlands Recovery Project \$200,000
City of San Diego \$82,300

Last updated: 8/26/2003

7. Los Penasquitos Hydrology Study

Date Funded: 9/01

Local Lead: Los Penasquitos Lagoon Foundation **Tier** 2

SCC Project Manager: Jim King, 510-286-4167, jking@scc.ca.gov

Prepare a hydrology and sedimentation study for the Los Peñasquitos Watershed and Lagoon system to characterize the sources and amounts of increased sediment loads and freshwater flows into the lagoon. Increased sedimentation is primarily a result of extensive urbanization and industrial development in the western portion of the watershed. This study will provide a basis for the development of an updated Los Peñasquitos Lagoon Enhancement Program. The study will organize existing information from all sources, including current water quality and flow monitoring data related to development in the watershed as well as within the lagoon itself. It will evaluate current measures required or planned to control sedimentation and excess flows, identify data gaps, collect additional information needed, and suggest options for future sediment management and restoration or enhancement of the system's hydrological functioning.

Status: The study should be completed in Spring 2004. There is approximately \$2 million in funding from Proposition 13 to implement this project.

Estimated cost: \$250,000

Funding: SCC-Los Penasquitos Special Deposit Account \$250,000

Cost Notes: Some funding may also be available from in-lieu mitigation fund.

Last updated: 8/26/2003

8. San Dieguito Lagoon Wetland Acquisition - Boudreau Property

Local Lead: San Dieguito River Park Joint Powers Authority **Tier** 1

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Acquire 75 acres within the floodplain of the San Dieguito River, located east of and immediately adjacent to the 400-acre San Dieguito Wetland Restoration Project. Approximately 1,848 linear feet of the river is on, or borders, the property. The property, which is currently used for agricultural production, is suitable for expanding the native grassland/seasonal salt marsh habitat areas of the planned restoration of San Dieguito Lagoon to be carried out by Southern California Edison. The property is also a critical linkage to riparian habitat to the east. If the JPA does not acquire the property for open space and habitat restoration use, it is very likely that the property will be used for construction of soccer fields.

Status: New Project

Estimated cost: \$2,510,000

Funding: SCC-Wetlands Recovery Project TBD
San Dieguito River Park JPA \$510,000

Last updated: 8/18/2003

San Elijo Lagoon Enhancement Program

- San Elijo Lagoon Acquisition Program
- Escondido Creek Watershed Restoration Action Strategy

9. San Elijo Lagoon Acquisition Program

Date Funded: 6/01

Local Lead: San Elijo Lagoon Conservancy

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Acquire up to 100 acres of property along the margins of San Elijo Lagoon. Several properties have been identified as high priorities for addition to the San Elijo Lagoon Reserve. These parcels would provide riparian habitat and upland buffers. Some parcels have opportunities for constructing polishing wetlands to improve the quality of water entering the lagoon. Property would be held by either the County or the San Elijo Lagoon Conservancy. Acquired parcels include:

The Manchester Property, an 18.9 acre parcel near the intersection of Manchester Avenue and El Camino Real. The property includes a portion of the seasonally intermittent Lux Creek and provides an opportunity for creating a freshwater polishing wetland. Acquisition costs was \$1.8 million. The property was acquired by the County of San Diego, with funding from the County, WRP, and U.S. Fish and Wildlife Service.

Approximately 32 acres have already been acquired by the Lagoon Conservancy for \$1.4 million.

The next parcel expected to be acquired is The Manchester Property, an 18.9 acre parcel near the intersection of Manchester Avenue and El Camino Real. The property includes a portion of the seasonally intermittent Lux Creek and provides an opportunity for creating a freshwater polishing wetland. Acquisition costs are estimated at \$1.8 million. The property would be acquired by the County of San Diego, with funding from the County, WRP, and U.S. Fish and Wildlife Service.

Status: SELC is negotiating for additional properties under this program.

Estimated cost:	\$4,717,000
Funding:	
SCC-Wetlands Recovery Project	\$2,000,000
U.S. Fish and Wildlife Service	\$650,000
County of San Diego	\$667,000
San Elijo Lagoon Conservancy - Ford Foundation	\$1,400,000

Cost Notes: Estimated cost of the Manchester Property is \$1.8 million. Funding includes: USFWS - \$650K; WRP - \$483K, and County of San Diego - \$667K.

Last updated: 8/18/2003

10. Escondido Creek Watershed Restoration Action Strategy

Date Funded: 6/03

Local Lead: San Elijo Lagoon Conservancy

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Prepare an integrated Watershed Restoration Action Strategy (WRAS) for overall management and restoration of the Escondido Creek watershed, the drainage for San Elijo Lagoon. In 2002, a watershed management plan was completed for the Carlsbad Hydrologic Unit, which includes Escondido Creek. This plan provides a system level description of the overall drainage group of seven watersheds, and recommends that individual watershed management plans be prepared with specificity at the subwatershed level.

In developing the WRAS, the Lagoon Conservancy will: perform a field survey of existing conditions and problems in the watershed; identify specific watershed management goals and objectives; compile a master list of acquisition, restoration, and enhancement projects to address these problems; prioritize projects based on goals and objectives; and develop project descriptions

for approximately 30 high priority, "ready to go" projects in the watershed.

Status: Preparation of the WRAS is underway and is expected to be complete by the end of 2004.

Estimated cost: \$371,460

Funding:	SCC-Wetlands Recovery Project	\$250,000
	City of Escondido	\$56,460
	City of Encinitas	\$35,000
	County of San Diego	\$30,000

Cost Notes: \$299K was requested from WRP.

Last updated: 8/18/2003

11. Cottonwood Creek Park Riparian Restoration

Date Funded: 10/02

Local Lead: City of Encinitas

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Recreate portions of riparian stream corridor on Cottonwood and Moonlight Creeks, in northern San Diego County. The project would be located on a 18.9 acre park in the City of Encinitas. Approximately half of the park would be used for habitat restoration and passive recreation. The project involves daylighting a portion of Cottonwood Creek and vegetating Cottonwood and Moonlight Creeks with riparian species. The project will recreate approximately 2.4 acres of riparian habitat along 1150 feet of stream corridor. High storm flows would be diverted into the existing stormwater system to protect the restored corridor. The project is expected to improve water quality of low-flows in the creek. The project provides excellent opportunities for education about water quality issues, watershed protection, and riparian systems.

Status: The project is under construction and should be complete by Spring 2004.

Estimated cost: \$272,500

Funding:	SCC-Wetlands Recovery Project	\$136,250
	City of Encinitas	\$136,250

Last updated: 8/18/2003

12. Batiquitos Lagoon Watershed -- Pioneer Land Property Acquisition

Local Lead: City of Encinitas

Tier Incubator

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Acquire 51.7 acres of wetland and upland habitat contiguous with Batiquitos Lagoon and approximately 340 acres of existing biological open space within the City of Encinitas Multiple Habitat Conservation Plan (MHCP) Focused Planning Area. The property includes three parcels. Two contiguous parcels totaling 4 acres are located immediately north of La Costa Avenue. These two parcels include a portion of Batiquitos Lagoon and support brackish marsh and southern willow scrub. The third parcel is approximately 47.7 acres and is located south of La Costa Avenue. Encinitas Creek, the main tributary to Batiquitos Lagoon, crosses the property.

The acquisition will enhance the sustainability of Batiquitos Lagoon and provide a continuous and strategic biological habitat linkage with the existing 340 acres of protected upland habitat within the City of Encinitas and the Batiquitos Lagoon watershed. Once acquired, the property would be preserved in perpetuity for open space and habitat conservation as part of a regional MHCP preserve system. Opportunities for future restoration and enhancement projects on the property include: removal of non-native vegetation and revegetation with native species on 4 acres of disturbed Brackish Marsh; replacement of non-native grassland with Coastal Sage Scrub on 2.5 acres; enhancement of 4 acres of disturbed habitat with Southern Willow Scrub habitat.

Status: New Project

Estimated cost: \$3,100,000

Funding: City of Encinitas \$250,000

Cost Notes: City needs to secure matching funds.

Last updated: 8/18/2003

13. Batiquitos Lagoon Exotics Removal and Revegetation

Local Lead: Batiquitos Lagoon Foundation

Tier 2

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Develop detailed plans for removing exotics and revegetating approximately 16 acres of wetland and upland habitat adjacent to Batiquitos Lagoon. A 1997 Conceptual Planning Study for the lagoon examined conservation and education opportunities and constraints that existed on the shore of the lagoon. The concept study divided the lagoon into 12 planning areas and concluded that invasive non-native plant species were the single greatest threat to habitat quality in and around the lagoon. The Batiquitos Lagoon Foundation has prioritized the magnitude of the threat to each planning area based on the size of the invasive occupied area, accessibility of the occupied area, and location in the lagoon.

This project will prepare the detailed plans, permits, and environmental review to remove exotics and revegetate the 5 highest priority areas around the lagoon. Implementation of the project is expected to be funded, at least in part, with funds from the Carlsbad Agricultural Mitigation Fund.

Status: The Conservancy is working with BLF to refine the project description.

Estimated cost: \$160,000

Funding: SCC-Wetlands Recovery Project \$150,000
Batiquitos Lagoon Foundation \$10,000

Last updated: 8/18/2003

14. Caulerpa Taxifolia Eradication Program

Date Funded: 12/02

Local Lead: Agua Hedionda Lagoon Foundation

Tier 1

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Survey for, identify and treat infestations of *Caulerpa taxifolia* in Agua Hedionda Lagoon to achieve full eradication. In June 2000, biologists conducting an eelgrass monitoring program discovered *Caulerpa taxifolia*, a highly invasive non-native marine algae growing in the Snug Harbor area of the Inner basin of the Lagoon. The presence of *Caulerpa taxifolia* in Southern California represents a significant threat to the wetland and fishery resources along the entire coast of California. If *Caulerpa taxifolia* spreads to the Pacific Ocean, all coastal wetland ecosystems will potentially be at risk from this highly invasive tropical algae. However, the opportunity to achieve full eradication still exists.

Since discovering *Caulerpa* in Agua Hedionda Lagoon, a multi-agency team has been aggressively treating the algae by tarping infested areas and injecting chlorine beneath the tarps. It is currently estimated that this program will need to continue until at least 2007. The project involves year-round monitoring of the lagoon for new infestations, treatment of current and new infestations, and public outreach and education to reduce the potential for future infestations.

Status: Project is underway. Recent surveys of Agua Hedionda Lagoon have found no sign of *Caulerpa*. If surveys continue to find the lagoon is free of *Caulerpa*, then monitoring will continue for up to two more years. U.C. Extension is preparing a scope of work for the education and outreach portion of the project.

Estimated cost: \$2,405,000

Funding:	SCC-Wetlands Recovery Project	\$1,300,000
	State Water Resources Control Board (requested)	\$1,000,000
	National Oceanographic and Atmospheric Admin.	\$100,000
	WalMart	\$5,000

Cost Notes: Federal, state, local, and private partners contributed funding to the first two years of eradication efforts. Past funding totals \$3.4 million. Funds are now be secured for the next five years.

Last updated: 8/26/2003

15. Buena Vista Lagoon Restoration Plan

Date Funded: 2/01

Local Lead: Buena Vista Lagoon Foundation

Tier 1

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Evaluate enhancement options for Buena Vista Lagoon, including the feasibility of establishing tidal flushing within the lagoon. The design and feasibility of future restoration and management projects requires data on the present conditions within the lagoon, and the ability to model possible enhancements including different combinations of dredging, spoils disposal, and structural modifications at critical points such as the I-5 crossing, Coast Highway/Carlsbad Boulevard crossing, the Santa Fe Railroad trestle, and the weir at the lagoon mouth. Possible options would be analyzed for cost-effectiveness in removing sediments and re-establishing habitat values in the lagoon, and would provide the basis for development of a long-term enhancement and maintenance plan for the lagoon. Project partners include the San Diego RWQCB and the California Department of Fish and Game.

Status: Study is underway and should be complete in October 2003.

Estimated cost: \$688,000

Funding:	SCC-Wetlands Recovery Project	\$200,000
	San Diego RWQCB	\$50,000
	Dept. of Fish and Game	\$10,000
	Buena Vista Lagoon Foundation	\$130,000
	Carlsbad Agricultural Mitigation Funds	\$233,000
	Coastal Conservancy (HCF)	\$65,000

Last updated: 8/18/2003

16. Buena Vista Creek Acquisition, Sherman Parcel

Local Lead: County of San Diego

Tier 2

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Acquire approximately 133.8 acres of land along Buena Vista Creek. The property is located approximately 1 mile upstream of Buena Vista Lagoon and includes approximately 70 acres of riparian habitat and 3200 feet of stream corridor. The property is in a proposed Multiple Habitat Conservation Planning area. SANDAG has prepared a Conceptual Area Protection Plan for their MHCP that includes acquisition of this property as a priority. The primary vegetation type in the creek bottom is Willow riparian habitat, with disturbed Coastal sage scrub and nonnative grassland habitats in the upland areas.

Status: County is pursuing additional funding. WCB staff are preparing a recommendation to contribute 2.1 million.

Estimated cost: \$4,400,000

Funding:	SCC-Wetlands Recovery Project	\$750,000
	Wildlife Conservation Board (proposed)	\$2,100,000

Cost Notes: \$2,000,000 was originally requested from WRP.

Last updated: 8/26/2003

17. San Luis Rey River Arundo Removal

Date Funded: 12/02

Local Lead: Mission Resource Conservation District

Tier 1

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Remove Arundo donax from over 450 acres along the San Luis Rey River and its tributaries, working from the top of the watershed down. The San Luis Rey River watershed is 359,000 acres, originating in the Palomar Mountains and reaching the ocean at the City of Oceanside. The river is designated as critical habitat by the Fish and Wildlife Service for three endangered species: least Bell's vireo, the southwestern willow flycatcher, and the arroyo southwestern toad. The San Luis Rey River supports the largest population of southwestern willow flycatchers in the State and the second largest population of least Bell's Vireos in San Diego County. The river contains several areas with the potential to support more wildlife, if the sources of habitat degradation are removed. Arundo infestations have lowered habitat quality along many stretches of the river.

The program is a comprehensive, watershed-based effort to remove Arundo from the river. It is expected that WRP funds would be used for a specific portion of this effort -- the control of up to 41 acres of Arundo distributed within 1470 acres along 2.7 miles of the San Luis Rey River. Least Bell's vireo, the southwestern willow flycatcher, and the arroyo southwestern toad currently use the project site and have the potential to increase in abundance if the habitat is restored.

Status: The WRP-funded portion of the project is underway and is expected to be completed by 2007.

Estimated cost: \$5,049,900

Funding:	SCC-Wetlands Recovery Project	\$642,000
	California Resources Agency	\$250,000
	San Diego State University	\$8,000
	State Water Resources Control Board	\$911,000
	California Dept. of Water Resources	\$695,700
	National Fish and Wildlife Foundation	\$18,300
	U.S. Army Corps of Engineers	\$300,000
	Local and private funds	\$124,000

Last updated: 8/26/2003

Aliso Creek Watershed Program

- Aliso Creek Mainstem Riparian Restoration
- Upper Sulphur Creek Restoration Project
- Wood Canyon Stream Stabilization and Restoration

18. Aliso Creek Mainstem Riparian Restoration

Local Lead: County of Orange

Tier Incubator

SCC Project Manager: Not assigned yet.

Stabilize approximately three miles of Aliso Creek and restore over 4000 acres of riparian habitat along the creek. Project components include the following: 1) construction a series of drop structures ("pool and riffle structures") to stabilize the creek gradient without having to lengthen the creek; 2) remove failed grade control structures and riprap and revegetate; 3) remove non-native invasive plant species; 4) re-establish native riparian habitat on the flood terraces; and 5) create off-channel aquatic and riparian habitat in an abandoned oxbow of the creek. The project was

developed through the Aliso Creek Watershed Management Feasibility Study prepared by the County and ACOE.

Aliso Creek is located in southern Orange County. The lower reaches of the creek and its tributary Wood Canyon Creek are located within a County-owned Wilderness Park and support high quality riparian habitat. The Aliso Creek watershed suffers from a number of problems related to urbanization of the watershed, including creek instability, degraded water quality, loss of fish and wildlife habitat, and flooding damages. Continued degradation of the creek threatens to degrade or destroy the riparian habitat in Aliso and Wood Canyon Creeks.

Status: New Project

Estimated cost: \$25,000,000

Funding:	SCC-Wetlands Recovery Project	\$675,000
	State Water Resources Control Board	\$2,636,200
	Dept. of Water Resources	\$5,000,000
	Army Corps of Engineers	\$16,133,800
	County of Orange	\$595,000

Cost Notes: None of the matching funds have been confirmed. WRP funds will not be provided until, and unless, the local-share implementation funding has been secured. WRP funds will also not be provided until the Wood Canyon project is underway.

Last updated: 7/16/2003

19. Upper Sulphur Creek Restoration Project

Local Lead: City of Laguna Niguel

Tier 2

SCC Project Manager: Not assigned yet.

Restore up to 28 acres of wildlife habitat as native wetland, transitional and scrub plant communities along 1.7-miles of Upper Sulphur Creek, including removing 3600 feet of concrete channel. Additional excavation in the middle reach will be used to create streamside terraces that will flood during winter storms of various intensities. Existing irrigated ornamental landscaping and invasive weedy vegetation will be removed and replaced with a mosaic of vegetation communities native to the local environment. Replacement plant species will be selected and arranged in plant communities in accordance with their adaptation to the specific hydrological regimes, microclimates and soil conditions along and specific distances above the stream flowline elevation. Plant communities will include emergent marsh; willow woodland; riparian woodland; oak woodland; coastal sage scrub; native grassland; and chaparral. The project will be carried out in partnership with three Homeowner's Associations and groups of volunteers.

Sulphur Creek is approximately 5 miles long and enters Aliso Creek 3 miles upstream of the ocean. The project site is a 1.7-mile-long stream corridor at the headwaters of Sulphur Creek. The project reach receives urban runoff drainage from a subwatershed of approximately 3 square miles within the City of Laguna Niguel, in the coastal hills of southern Orange County. Upper Sulphur Creek was channelized in the 1970s in conjunction with rapid suburban development. The reach is accessible along its east side from a continuous public sidewalk along Crown Valley Parkway. In the upstream reaches, an unpaved regional equestrian/hiking trail extends along the site's west edge.

Status: New Project

Estimated cost: \$1,193,780

Funding:	SCC-Wetlands Recovery Project	\$105,000
	State Water Resources Control Board	\$928,723
	City of Laguna Niguel	\$160,057

Last updated: 7/16/2003

20. Wood Canyon Stream Stabilization and Restoration

Local Lead: County of Orange

Tier 1

SCC Project Manager: Not assigned yet.

Restore degraded riparian habitat along approximately 3.5 miles of Wood Canyon Creek and its tributaries. Wood Canyon Creek is a tributary to Aliso Creek. The project consists of three main elements: 1) modification of an existing detention basin at the upstream boundary of the Wilderness Park which is contributing to erosion in Wood Canyon; 2) re-routing and revegetating a approximately 2.75 miles of a tributary stream to reduce erosion and create a more natural, meandering stream channel; and 3) removal of non-native species. In addition to habitat benefits, the project will provide water quality benefits by increasing the capability of Wood Canyon Creek to filter non-point source pollution.

Wood Canyon is characterized by its rugged hillsides, oak woodlands, freshwater marshes, riparian corridors and abundant wildlife. The proposed restoration encompasses Wood Canyon Creek and its lower order tributaries from its origin in the northern section of the Aliso and Wood Canyons Wilderness Park to its confluence with Aliso Creek.

The impacts of the surrounding communities have increased inputs of urban runoff and stormwater into Wood Canyon over the past thirty years. This project will address restoration of those areas of the canyon that show detrimental effects from erosion and resulting sediment loading of the downstream areas in Aliso Creek.

Status: The ACOE is finalizing the design plans for the project.

Estimated cost: \$1,255,000

Funding:	SCC-Wetlands Recovery Project	\$300,000
	U.S. Army Corps of Engineers	\$930,000
	County of Orange (in-kind)	\$25,000

Cost Notes: Project is eligible for a 65% ACOE match, which is available through the LA District. WRP would fund approximately 30%, and County would provide remaining 5%.

Last updated: 8/18/2003

San Diego Creek Watershed

- Serrano Creek Stabilization and Restoration
- Serrano Creek Exotics Removal
- San Joaquin Marsh Enhancement - Phase II, Feasibility Study
- Big Canyon Creek Restoration Plan
- Upper Newport Bay Ecological Restoration, Final Design Plans

21. Serrano Creek Stabilization and Restoration

Date Funded: 1/02

Local Lead: County of Orange

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Stabilize and restore approximately 1.1 miles of Serrano Creek, a tributary to San Diego Creek and Upper Newport Bay. Serrano Creek has suffered severe bank erosion and channel incision and is a significant source of sediment loading to Upper Newport Bay. The project will stabilize Serrano Creek through construction of rock grade stabilization structures, rock bank slope protection, bendway weirs, and extensive replanting of the creek edges and bank. Three types of habitat will be planted as part of the project. Riparian habitat will be planted at the base of creek banks and will be dominated by willow species. A transitional zone of plants will be planted between the 10 and 50-year flood plains. Cottonwoods and sycamores will dominate this habitat. Oak woodland will be planted above the 50-year flood plain. Coast Live Oaks will dominate this habitat. The project evolved out of a multi-year planning process among the City of Lake Forest, County of

Orange, and the Serrano Creek Conservancy. The planning process had significant involvement from the local community, including several community workshops. The project is designed to balance the goals of flood management, habitat preservation and restoration, and recreation/public access.

Status: Project construction is complete. The vegetation establishment and management phase of the project will continue until 2005.

Estimated cost: \$2,578,000

Funding:	SCC-Wetlands Recovery Project	\$500,000
	City of Lake Forest - state grant	\$182,451
	County of Orange - state grants	\$639,043
	Serrano Creek Conservancy - Urban Strm Rest. Grant	\$144,758
	County of Orange - FEMA grant	\$347,061
	City of Lake Forest	\$400,000
	County of Orange FCD	\$584,597

Last updated: 8/19/2003

22. Serrano Creek Exotics Removal

Local Lead: County of Orange **Tier 2**

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Remove invasive non-native plants from approximately two miles of Serrano Creek between Lake Forest Dr. and Bake Parkway. Serrano Creek is the principal tributary to San Diego Creek, the primary drainage to Upper Newport Bay. Natural communities that can be found along the creek include mature sycamore/willow woodlands, mature oak woodland, mule fat scrub and coastal sage scrub. The endangered California Gnatcatcher breeds along Serrano Creek. The creek also provides potential habitat for future use by the southwestern willow flycatcher and the Least Bell's Vireo. The project will increase habitat for native species, retain ground water for use by native vegetation, reduce flood control problems, and reduce the threat of exotic species spreading further in the watershed.

Several non-native invasive species will be removed along the creek channel, including Arundo, artichoke thistle, castor bean, tree tobacco and pampas grass. Volunteers will be used to the extent possible.

Status: The County of Orange has not initiated this project yet.

Estimated cost: \$227,650

Funding:	SCC-Wetlands Recovery Project	\$58,000
	Serrano Creek Conservancy	\$52,050
	Dept. of Water Resources - Urban Streams Grant	\$57,800
	County of Orange	\$60,000

Last updated: 8/19/2003

23. San Joaquin Marsh Enhancement - Phase II, Feasibility Study **Date Funded:** 1/02

Local Lead: University of California, Irvine **Tier 2**

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Prepare a feasibility study, conduct environmental review, consult with permitting agencies, and prepare final construction designs and contract documents for Phase II of San Joaquin Marsh Reserve restoration. The 1997 Revised San Joaquin Marsh Enhancement Plan recommended that restoration of the marsh proceed in two phases. Phase I, which was completed in January 2000, encompassed enhancement of seasonal ponds and restoration of coastal sage scrub habitat.

Phase II will focus on enhancement of the approximately 120 acres of perennial marsh.

The feasibility study will evaluate alternatives to increase and maintain open water areas within the perennial marsh. Historically, the perennial marsh contained open water areas and channels. The extent and depth of the open water areas has significantly decreased due to gradual accumulation of sediment and organic matter and subsequent encroachment of cattails. Except for a few remaining open water areas, the marsh has become predominantly a monoculture of cattails. Consequently, the loss of open water habitat has reduced the diversity of wildlife species that the San Joaquin Marsh Reserve supports

Status: Preparation of the Feasibility Study is underway. Final design plans, environmental review, and permit applications should be complete by December 2004.

Estimated cost: \$315,136

Funding: SCC-Wetlands Recovery Project \$300,000
U.C. Irvine (in-kind services) \$15,136

Cost Notes: The preliminary cost estimate for implementation is \$2.5 million.
No implementation funding has been identified yet.

Last updated: 8/26/2003

24. Upper Newport Bay Ecological Restoration, Final Design Plans

Date Funded: 8/01

Local Lead: County of Orange

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Prepare final design and engineering plans for ACOE ecological restoration project that will dredge 2.1 million cubic yards of sediment from Upper Newport Bay. The Ecosystem Restoration Project involves deepening both the Unit I/III and Unit II sediment basins in the upper bay to -20 feet below mean sea level. This will remove approximately 2.1 million cubic yards of sediment from the bay. The sediment will be disposed of offshore at an approved EPA disposal site. The project also includes an ongoing maintenance dredging program that will be undertaken approximately every 21 years. In addition to the proposed dredging program, the project includes several enhancements to existing habitat areas. These include dredging channels to promote tidal circulation and limit predator access to sensitive areas and expanding mudflat habitat in several locations to compensate for mudflats lost to dredging.

The Ecosystem Restoration Project would result in the net gain of approximately 42 acres of open water habitat and the net loss of approximately 39 acres of mudflat habitat. The Feasibility Study estimates that without the proposed project, 171 acres of open water habitat would be lost over the next 50 years. The Ecosystem Restoration Project is one of several ongoing efforts in the bay and San Diego Creek watershed to reduce sedimentation in the bay.

Status: The ACOE has begun preparation of the final design and engineering plans.
Construction is expected to begin in the federal fiscal year 2004.

Estimated cost: \$2,000,000

Funding: U.S. Army Corps of Engineers \$1,500,000
Coastal Conservancy -- Prop 12 \$500,000

Cost Notes: The Coastal Conservancy has approved \$500,000 for this project to date.
Proposition 12 allocated up to \$13 million for projects at Upper Newport Bay. It is expected that these funds will be used to fund the local share of the project.

Last updated: 8/19/2003

San Diego Creek Watershed

- Serrano Creek Stabilization and Restoration
- Serrano Creek Exotics Removal
- San Joaquin Marsh Enhancement - Phase II, Feasibility Study
- Big Canyon Creek Restoration Plan
- Upper Newport Bay Ecological Restoration, Final Design Plans

25. Big Canyon Creek Restoration Plan

Date Funded: 10/02

Local Lead: Community Conservancy International

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Prepare restoration plan for Big Canyon Creek, a tributary to Upper Newport Bay. The plan will address wetland habitat, water quality, drainage and hydrologic issues, storm drain problems, tidal exchange needs, sedimentation, long-term system sustainability, and public access. The plan will evaluate the restoration potential of several habitat types, including tidal channels, mudflats, salt marsh, freshwater and brackish water marsh. The plan will also make recommendations for addressing drainage problems and water quality contamination from Big Canyon Country Club golf course, bluffside homes and impervious urban watershed area. The final document will include plans for detailed drainage improvements, dredging, revegetation, restoration of wetlands and related habitats, re-creation of tidal exchange, public access and trail construction.

Big Canyon Creek drains a two square mile, heavily urbanized watershed directly into Upper Newport Bay. The project area consists of 45 acres of coastal sage scrub, riparian woodland and freshwater marsh, with heavy stands of non-native plants. Endangered species that use the site include the plant Salt Marsh Bird's Beak, and the California Gnatcatcher, Belding's Savannah Sparrow, California Brown Pelican, and possibly Least Terns. Big Canyon was once a functioning complex of wetland and upland habitats, including estuarine, marine mudflats, brackish and fresh water marsh, riparian woodland, coastal sage scrub and marine tidal channels. However, repeated flooding events, particularly during the 1997 El Nino storms, have caused enormous damage to Big Canyon, destroying habitat and public access. Flooding, sedimentation and choked downstream drainages have reduced the extent and quality of wetlands habitat.

Status: The initial planning phase is underway and is expected to be complete by December 2003. The second phase of planning, including engineering designs, CEQA and permitting, will begin in early 2004.

Estimated cost: \$304,000

Funding:	SCC-Wetlands Recovery Project	\$167,000
	City of Newport Beach	\$110,000
	Newport Naturalists (in-kind)	\$10,000
	Community Conservancy International (in-kind)	\$17,000

Cost Notes: Original budget estimate was \$429,000, with \$268,300 requested from WRP.

Last updated: 8/19/2003

26. Orange Coast River Park

Local Lead: Friends of Harbors, Beaches and Parks

Tier Incubator

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Develop and implement an action strategy for the Orange Coast River Park, a 1000 acre mosaic of wetland, riparian, and upland habitats along the lower three miles of the Santa Ana River. It is envisioned that the Orange Coast River Park would extend up the east side of the Santa Ana River to the eastern boundary of Fairview Park. Included within the proposed boundaries are Fairview Park, and North and South Talbert Preserves, the Huntington Beach Wetlands, the US Army Corps of Engineers restoration marsh at the mouth of the river, Sunset Ridge, and Superior Park in

Newport Beach. The privately-owned Banning Ranch would also be included in the park if it is acquired for conservation purposes.

Planning and restoration of each of these pieces is in different stages of development; some have already been completed. The proposed project will develop and implement an action strategy for combining these disparate pieces into one coordinated river park. It will also outline additional planning and implementation steps needed for each of the individual pieces, including preparation of a restoration plan for South Talbert Park and implementation of the restoration elements of the Fairview Park Master Plan.

Status: New Project

Estimated cost: Not available.

Funding: SCC-Wetlands Recovery Project TBD
State Water Resources Control Board \$634,000

Cost Notes: Scope and budget need to be substantial revision.

Last updated: 8/19/2003

Huntington Beach Wetlands Program

- Huntington Beach Wetlands Restoration Plan
- Huntington Beach Wetlands Acquisition

27. Huntington Beach Wetlands Restoration Plan

Local Lead: Huntington Beach Wetlands Conservancy **Tier 2**

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Prepare a comprehensive restoration plan for the entire Huntington Beach Wetlands ecosystems. The Huntington Beach Wetlands complex encompasses approximately 160 acres of restored and degraded salt marsh, seasonal wetlands, and coastal dune habitat. In 1989, HBWC restored Talbert Marsh, a 25 acre portion of the wetland complex. While overall this restoration has been a success, changes over time require follow-up enhancement activities to maximize habitat quality. The Huntington Beach Wetlands Conservancy (HBWC), with assistance from the Coastal Conservancy, has acquired 65 acres of the remaining wetlands. Negotiations with private landowners to acquire the remaining privately owned parcels are ongoing.

The purpose of the project is to evaluate the engineering, environmental, and economic feasibility of restoration alternatives within the Huntington Beach Wetlands ecosystem, and then develop a framework for coordinated restoration within the entire wetland ecosystem. The plan will address the entire wetlands ecosystem from the Santa Ana River to Beach Boulevard and will also address the enhancement activities needed at Talbert Marsh. Detailed restoration planning and implementation is expected to take place in phases, probably with different agencies leading implementation of individual phases.

Status: The Conservancy is working with HBWC, the City, County, ACOE and others to develop a scope of work for the planning effort.

Estimated cost: \$300,000

Funding: SCC-Wetlands Recovery Project \$300,000

Cost Notes: Cost estimate is preliminary.

Last updated: 8/19/2003

28. Huntington Beach Wetlands Acquisition

Local Lead: Huntington Beach Wetlands Conservancy **Tier 1**

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Acquire from willing sellers properties in private ownership within the Huntington Beach Wetlands complex. The Huntington Beach Wetlands encompass 160 acres, approximately 90 of which are in conservation ownership. Of these, only 25 acres of which have been restored. The remaining areas of the Huntington Beach wetlands support degraded, non-tidal salt marsh. The key parcel remaining in non-conservation ownership is the 16-acre parcel owned by the University of California, which received it through a donation. The U.C. parcel is located between Magnolia and Brookhurst streets and is contiguous with 35 acres now owned by the HBWC.

Status: The Coastal Conservancy has had preliminary discussions with U.C. about acquiring its parcel. U.C. is considering preparing an appraisal.

Estimated cost: \$1,000,000

Funding: SCC-Wetlands Recovery Project \$1,000,000

Last updated: 8/19/2003

29. Bolsa Chica Wetlands Restoration

Local Lead: Steering committee of 8 federal and state agencies. **Tier 1**

SCC Project Manager: Peter Brand, 510-286-4162, brand@scc.ca.gov

Restore and enhance approximately 367 acres to full tidal influence, improve muted tidal circulation to 200 acres, retain 120 acres of seasonal pond habitat, and reserve 252 acres for future full tidal restoration when oil field operations terminate in 15-20 years. Most of the affected area has been isolated from tidal action since approximately 1900 and has been used for oil production for 65 years or so. Project elements include buying out certain oil production facilities, recreating a tidal channel and stabilizing it with short jetties, pre-filling an offshore sandbar and augmenting the volume of beach sand, dredging a tidal basin, bolstering perimeter levees, installing a French drain and pump system, forming upland islands, improving culverts between new tidal basin and muted tidal area, building a bridge on Pacific Coast Highway (including pedestrian and bicycle lanes separate from vehicle traffic lanes) and an oil field access bridge to span the new tidal channel, and setting aside an endowment for operation and maintenance. The tidal channel and bridge will be built to serve both the 367-acre tidal wetland restoration and the additional 252 acres that will eventually be opened to tidal action after oil operations cease. Remediation and abandonment of oil facilities in the initial restoration area is being accomplished principally by responsible private parties, but is being planned in coordination with habitat restoration.

The Bolsa Chica wetlands are located in Orange County, surrounded by the City of Huntington Beach. The project site lies adjacent to the Department of Fish and Game's Ecological Reserve and consists of 350 acres of habitat within 1300 acres of lowlands, most of which the State owns. Partially-developed mesas rise at both the upcoast and downcoast ends of the lowlands. The 1300 acres of lowlands are a remnant of a complex of approximately 2500 acres of streams and wetlands that has been reduced in size and degraded by agricultural and urban development and by construction of flood management channels oil and extraction facilities.

Status: Final design plans are being prepared. Construction is expected to begin in October 2004 and is expected to take three years.

Estimated cost: \$90,000,000

Funding: SCC-Wetlands Recovery Project \$20,000,000
U.S. Fish and Wildlife Service (seeking) \$11,000,000
Ports of Long Beach and Los Angeles \$53,000,000

Cost Notes: The Ports money is held by State Lands Commission in an interest-bearing account. Precise amount available for project largely dependent upon amount of interest accrued by construction start date. WRP funding is dependent upon future appropriations by Legislature. USFWS funding is dependent upon future appropriations by Congress.

Last updated: 8/26/2003

30. East Garden Grove Wintersburg Channel Treatment Wetland

Local Lead: City of Huntington Beach

Tier 2

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Conduct a feasibility study for diverting up to six million gallons per day from the East Garden Grove Wintersburg Channel (EEGWC) into treatment wetlands in Huntington Beach Central Park. Water would be drawn from the EEGWC and would flow through three small lakes located in Central Park. Much of the water would be lost to either evapotranspiration or infiltration, but remaining flows would be returned to the EEGWC. The project would have multiple objectives including improved water quality, increased wildlife habitat, and enhanced recreational opportunities. A key issue in the project design will be balancing concerns about water quality and habitat quality.

Status: The City has developed a scope of work for a feasibility study. The City and SWRCB are finalizing their grant agreement. The Conservancy expects to approve funding for the planning phase by early 2004.

Estimated cost: \$175,000

Funding: SCC-Wetlands Recovery Project \$80,000
City of Huntington Beach - Prop 13 SWRCB grant \$95,000

Cost Notes: The preliminary cost estimate for planning and implementation is \$3.9 million. The City of Huntington Beach has received a Prop. 13 grant from the State Water Board for \$3,291,000. \$615,000 was originally requested from the WRP for planning and implementation.

Last updated: 8/26/2003

Los Cerritos Wetlands Program

- Hellman Ranch Acquisition (Los Cerritos)
- Bryant Acquisition (Los Cerritos)
- Los Cerritos Wetlands Conceptual Restoration Plan
- Bixby Ranch Company Acquisition (Los Cerritos)

31. Hellman Ranch Acquisition (Los Cerritos)

Local Lead: Wildlife Conservation Board

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Acquire approximately 100 acres of the Los Cerritos Wetlands located on the Hellman Ranch property. The Hellman property lies south of the San Gabriel River in the City of Seal Beach. Under a settlement agreement between the owners, the Coastal Commission, and a group of environmental organizations, the owners must offer this area for sale to a public entity. The landowners prefer that the Wildlife Conservation Board take the lead in negotiating this acquisition.

Acquisition of the Bixby and Bryant properties in the Los Cerritos Wetlands are also included on the WRP Work Plan.

Status: The property appraisal was completed in Summer 2001. WCB and the Coastal Conservancy are working with the landowners to develop an agreement for dealing with soil contamination on site. Acquisition could occur in 2004.

Estimated cost: Confidential

Funding: Wildlife Conservation Board TBD

Cost Notes: Project is expected to be funded by WCB.

Last updated: 8/19/2003

32. Bryant Acquisition (Los Cerritos)

Local Lead: Trust for Public Land

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Acquire the 85-acre Bryant property, a portion of the Los Cerritos Wetlands. The Bryant property is located between the Hellman and Bixby properties in the City of Long Beach. A portion of the Bryant property straddles the San Gabriel River channel.

Acquisition of the Bixby and Hellman properties in the Los Cerritos Wetlands is also included on the WRP Work Plan.

Status: The Trust for Public Land is taking the lead on the negotiations for acquisition of the Bryant Ranch. Two appraisals have been prepared, neither of which have been approved by all parties. TPL is considering preparing a third appraisal.

Estimated cost: Confidential

Funding: SCC-Wetlands Recovery Project \$1,000,000

Last updated: 8/19/2003

33. Bixby Ranch Company Acquisition (Los Cerritos)

Date Funded: 6/01

Local Lead: Trust for Public Land

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Acquire the 181-acre Bixby Ranch portion of the Los Cerritos Wetlands complex. The Coastal Conservancy had an option to purchase the property, but it expired in December 2000. Negotiations for acquisition continue. Key issues in the negotiation include relocation of the oil operations and site clean-up.

The Bixby Ranch is located in the City of Long Beach, northwest of the San Gabriel River, near the mouth of the river. Los Cerritos Channel, a tidal channel, crosses through the northern part of the property. Westminster Avenue divides the property into two parcels with about 80% of the land located north of Westminster.

Acquisition of the Hellman and Bryant properties in the Los Cerritos Wetlands is also included in the Work Plan.

Status: The Trust for Public Land is taking the lead on the negotiations for acquisition of the Bixby Ranch. There are several significant issues that need to be resolved.

Estimated cost: Confidential

Funding: SCC-Wetlands Recovery Project \$11,400,000

Cost Notes: Acquisition costs for the entire Los Cerritos complex are estimated at \$25 million. In June 2001, the Conservancy approved \$11.4 million in funding for "Los Cerritos" wetlands acquisitions; this funding requires an \$11 million match of non-state funds.

Last updated: 8/19/2003

34. Los Cerritos Wetlands Conceptual Restoration Plan

Local Lead: Coastal Conservancy

Tier 1

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Prepare conceptual restoration plan for the Los Cerritos Wetlands. Project would include an assessment of existing resources, hydrologic analysis, identification of opportunities and constraints, an evaluation of alternatives for expanding tidal circulation and restoring fresh and brackish water wetlands. A recommended conceptual restoration plan will then be prepared. Preparation of the conceptual plan is contingent upon adequate access to property and cooperation of private and public property owners.

Status: A preliminary scope of work has been drafted. The project is on hold until one or more of the Los Cerritos acquisitions is complete or nearly complete.

Estimated cost: \$500,000

Funding: SCC-Wetlands Recovery Project \$500,000

Last updated: 8/19/2003

35. El Dorado Regional Park Wetlands Feasibility Study

Local Lead: City of Long Beach

Tier 2

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

El Dorado Regional Park is a 470-acre park in the City of Long Beach, which is bordered on the west by the San Gabriel River and on the east by the 605 Freeway. Within the park there are six lakes and several streams totaling 32 acres of wetland area. These areas are used by a variety of waterfowl. The South of Willow site is a mix of City-owned and Edison right-of-way property and has been heavily disturbed through extensive construction and maintenance activities associated with the waste water treatment plant, the new Water Replenishment District groundwater injection facility, and the Southern California Edison power lines. As a result, very little useful habitat currently exists in this location and wildlife use is minimal.

Prepare a wetlands restoration plan for El Dorado Regional Park and the South of Willow site along the San Gabriel River and Coyote Creek in Long Beach. Potential restoration activities include restoring displaced native riparian and wetlands habitats; recreating connected systems of wetland and stream corridor habitat from the north to the southern end of the park; improving water quality improvement in the tidal area of the San Gabriel River through the use of natural wetland treatment systems in the park; providing public access, passive recreation, and environmental education opportunities; and reducing dependency on potable water for the replenishment of the lakes and streams. The WRP's funding will primarily target the South of Willow site which provides the best opportunity for increasing wetland habitat.

Status: New Project

Estimated cost: \$147,000

Funding: SCC-Wetlands Recovery Project TBD
LA/SG Rivers and Mountains Conservancy \$100,000
City of Long Beach \$7,000

Cost Notes: Cost estimate is probably low.

Last updated: 8/19/2003

36. Coyote Creek Watershed Plan

Date Funded: 2/03

Local Lead: County of Orange

Tier 2

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Prepare Watershed Management Plan for Coyote Creek, a tributary to the San Gabriel River. The project will be done in partnership with the Army Corps of Engineers, the counties of Orange and Los Angeles, and several cities. WRP funds will be used to characterize wetlands resources in the watershed and identify potential wetlands enhancement and restoration projects. Other areas of technical study for the 147 square mile watershed will include surveying and mapping, hydrology and water quality assessment, hydraulics, geomorphology and sedimentation, social and economic issues, flooding and erosion damage, recreation analysis, environmental and cultural resources, geotechnical considerations and regulatory requirements. A portion of WRP funds will also be used to implement an outreach program to increase the diversity of stakeholders participating in the planning process.

Existing problems in the Coyote Creek Watershed include: excessive nutrient loading in the San

Gabriel River, aquatic life toxicity from stormwater runoff, loss of native habitats and their associated species, introduction of nonnative species, loss of wildlife corridors, erosion and downcutting of streams, and bioaccumulation of toxic compounds in the food web.

Status: The watershed plan is underway and is expected to be complete by Fall 2005.

Estimated cost: \$3,400,000

Funding:	SCC-Wetlands Recovery Project	\$130,000
	County of Orange (SWRCB Prop. 13 grant)	\$200,000
	Rivers and Mountains Conservancy	\$50,000
	U.S. Army Corps of Engineers	\$1,750,000
	OC and LA Sanitation Districts	\$60,000
	Cities in Orange County	\$300,000
	Los Angeles County and Cities	\$250,000
	County of Orange	\$60,000

Last updated: 8/26/2003

37. Colorado Lagoon Restoration Project

Date Funded: 12/02

Local Lead: City of Long Beach

Tier 2

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Develop a restoration plan for Colorado Lagoon, a 44-acre saltwater lagoon connected to Alamitos Bay. The principal goals of the plan are to identify measures to improve the fish and wildlife habitat in and around the lagoon and to improve the quality of the water flowing into and out of the lagoon. Specific objectives include:

- *Redirect, reduce or filter storm and dry weather runoff to minimize contamination of water and sediment in the lagoon;
- *Identify sources of pollutants and recommend controls within the watershed;
- *Evaluate need to remove contaminated sediments;
- *Restore and maintain estuarine habitat; and
- *Improve lagoon circulation and the tidal connection with Marine Stadium and Alamitos Bay

The project would be undertaken by the City of Long Beach Parks and Recreation Department with input from the Friends of Colorado Lagoon. The lagoon suffers from poor water quality, frequent algal blooms, and low biological diversity. The lagoon is part of the historic Los Cerritos Wetlands complex. It is a saltwater body that was created by dredging a mudflat and is connected by tide gate to Alamitos Bay through the Marine Stadium. Five storm drains currently discharge into the lagoon. The tide gate is left open during the winter and is closed at times during the summer to retain enough water in the Lagoon for swimming which is allowed in the west arm of the Lagoon. The Lagoon was once a popular clamming site and still supports a considerable number of cherrystone clams. Marine fish can be found in the lagoon.

Status: The study is underway and is expected to be completed by June 2005.

Estimated cost: \$200,000

Funding: SCC-Wetlands Recovery Project \$200,000

Last updated: 8/26/2003

Lower Los Angeles River Program

- Lower Los Angeles River Acquisitions
- DeForest-Dominguez Wetlands Restoration Preliminary Plan

38. DeForest-Dominguez Wetlands Restoration Preliminary Plan

Local Lead: Los Angeles County Department of Public Works

Tier 2

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Prepare a preliminary plan, environmental review document, and permits for creation of wetland and riparian habitat along approximately 3 miles of the east bank of the Los Angeles River. The plan will be jointly undertaken by the City of Long Beach and the Los Angeles County Department of Public Works (LADPW). The De Forest Park site is approximately 38 acres located on the east side of the Los Angeles River extending about 6,600 feet between the developed DeForest Park to the north and Del Amo Boulevard to the south. The Dominguez Gap east basin extends from Del Amo Blvd. to the 405 freeway. The project has multiple objectives including increasing and enhancing wetland and riparian habitat, improving water quality, and enhancing recreational opportunities.

Restoration of DeForest Basin, in concert with the Dominguez Gap Spreading Ground Basin operated by Los Angeles County Public Works and acquisition of the Wrigley Heights properties by the City of Long Beach, will establish a four mile contiguous corridor of habitat and recreational open space along the Los Angeles River in Long Beach.

Status: The scope of work is in preparation. Planning should begin in early 2004 and will take approximately 2 years to complete.

Estimated cost: \$800,000

Funding:	SCC-Wetlands Recovery Project	\$400,000
	Rivers and Mountains Conservancy	\$100,000
	Los Angeles County Department of Public Works	\$300,000

Cost Notes: Conceptual planning was funded by the Coastal Conservancy with money designated for the Los Angeles River in Prop. 204. LADPW funded conceptual planning for the Dominguez Gap basin. Implementation funding will come from a variety of sources.

Last updated: 8/26/2003

39. Lower Los Angeles River Acquisitions

Local Lead: City of Long Beach

Tier 2

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Acquire properties adjacent to the lower Los Angeles River suitable for wetland and riparian restoration projects. Several properties along the lower Los Angeles River have been identified as possible sites for wetland restoration. Negotiations for these sites are in varied stages. Potential sites include:

Edison property: 72 acres. The property is located on the west bank of the river between Del Ammo Blvd. and Artesia Blvds. It is zoned for public access and flood control. Edison is currently marketing the property for commercial development.

Wrigley Heights, North: 15.8 acres. Located east of the river and north of the 405 freeway. The site is adjacent to the Dominguez Gap spreading grounds. Owner appears willing to sell. The City of Long Beach would like to acquire the property. Approximately 9.6 acres would be used for possible recreation, and 6.2 acres for riparian restoration. Estimated cost is \$4,000,000.

Wrigley Heights, South: 24.7 acres. Property is located on the east side of the river between Wardlow Road and the 405 freeway. Site was used for an oil/water separation facility. There is now a horse stable on the property. The City of Long Beach would like to acquire the property for a mixed-use park, including a wetland restoration at the site of the former separation facility. The current owners would be responsible for site clean up. Estimated cost is \$4,000,000.

Southern Pacific Transportation Site: 11 acres. Located adjacent to the Sixth Street Wetlands Restoration site being pursued by the City of Long Beach and the Coastal Conservancy. City would like to acquire property for a mixed use park, including an extension of the Sixth Street wetland

restoration. Estimated cost is \$10,000,000.

Status: Conservancy staff are working with the City of Long Beach on several potential acquisition sites.

Estimated cost: \$20,000,000

Funding: SCC-Wetlands Recovery Project \$2,000,000

Cost Notes: Cost estimate is very preliminary and includes upland and recreational areas in addition to potential wetland restoration areas.

Last updated: 8/26/2003

40. Arroyo de las Pasas Restoration

Local Lead: North East Trees

Tier 2

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Conduct technical studies and detailed designs for restoration of one-half mile of creek corridor and enhancement of existing wetland habitat in Hazard Park in the City of Los Angeles. Within the park is small degraded wetland and remnants of an historically perennial creek, the Arroyo de las Pasas. In the early 1900s, Southern Pacific Railroad constructed a rail line in the creekbed. The property was recently reacquired by the City of Los Angeles.

In 1998, the Coastal Conservancy funded development of a conceptual restoration plan for the wetland and the historic creek corridor. This concept plan included the following elements: removal of rails and railbed; removal of exotic plants; preservation and enhancement of existing marsh; creation of a meandering low flow stream channel; establishment of native plantings along slopes; and construction of a bicycle and pedestrian path with a bridge over the wetland. Based on this conceptual plan, NET will perform necessary technical studies and prepare detailed design plans, permit applications, and an environmental review document.

Status: New Project

Estimated cost: \$208,620

Funding: SCC-Wetlands Recovery Project \$185,880
City of Los Angeles \$22,740

Cost Notes: Cost estimate is preliminary

Last updated: 8/19/2003

41. Machado Lake Habitat Restoration Project

Local Lead: City of Los Angeles

Tier 2

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Prepare an enhancement plan for Machado Lake, which is located in the Ken Malloy Harbor Regional Park (KMHRP) in the communities of Harbor City and Wilmington in the City of Los Angeles. Machado Lake, which is approximately 103 acres in size, represents the only remaining natural wetlands in the Los Angeles Harbor area and serves a particularly important role in sustaining migratory and local bird populations in the Los Angeles area.

The enhancement plan will address removal of exotic species, re-establishment of native plant species, and long-term maintenance procedures. Environmental review and permitting will also take place in this planning phase.

Status: New Project

Estimated cost: \$300,000

Funding: SCC-Wetlands Recovery Project \$300,000

Cost Notes: Proposal has no matching funds at this phase of the project, but has applied to

SWRCB for implementation funds. City is using Prop. K funds to prepare EIR for Ken Malloy Harbor Regional Park Master Plan.

Last updated: 8/19/2003

42. Devil's Dip Creek Restoration and Daylighting

Local Lead: North East Trees

Tier Incubator

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Develop restoration plan for a portion of Devil's Dip Creek, a tributary to Dominguez Channel, and prepare design plans, permits, and an environmental review document. The project will focus on the reach of Devil's Dip Creek that runs through the Chester Washington Golf Course, a County-owned park facility in South Los Angeles. The creek runs above ground in two places through the course, totaling approximately .7 acres of riparian habitat. It is buried under an additional 1.6 acres of the golf course. The above-ground portions of the creek have suffered severe erosion. Recent rains have caused extensive damage to the inlet headwall at El Segundo Boulevard, to the extent that perimeter fencing has been destabilized. Trash backing up at the stream's outlet tends to cause high velocity discharges. Buried portions of the creek appear to be causing sinkholes in the golf course.

Status: New Project

Estimated cost: \$248,925

Funding: SCC-Wetlands Recovery Project TBD

Cost Notes: Cost estimate is very preliminary.

Last updated: 8/19/2003

43. Ballona Wetlands Acquisition

Local Lead: Wildlife Conservation Board

Tier 1

SCC Project Manager: Steve Horn, 510-286-4157, horn@scc.ca.gov

Acquire from willing sellers properties within the Ballona Wetlands complex. The Ballona wetlands complex is located at the mouth of Ballona Creek. The Ballona and Los Cerritos wetlands complexes are the largest remaining areas for tidal marsh restoration in Los Angeles County, which has lost over 90 percent of its coastal wetlands. The acquisition would include three areas: Area A (138 acres), Area B-residential (54 acres), and the Ballona wetlands parcel (306 acres).

Area A is located north of Ballona Creek and west of Lincoln Blvd. Area A is undeveloped with the exception of a parking area along the western boundary and a drainage channel along the northern boundary. Although the drainage ditch is connected by culvert to Marina del Rey, there is no tidal exchange because the bank height and the elevation of surrounding lands are above high tide ranges. Area B is located south of Ballona Creek and west of Lincoln Blvd. Area B contains the largest area of remnant wetlands, with gas and oil wells along the base of the bluffs to the east and fallow agricultural lands to the north. Area B receives tidal flows from Ballona Creek; however, the tidal prism is strongly muted by tidal flap gates on the creek.

Habitats found on the two parcels include upland scrub, pickleweed dominated vegetation, mud flat, riparian, coastal dune, and ruderal. Several special status species are found on the site including the California least tern, Belding's savannah sparrow, and California brown pelican.

Status: The appraisal is complete. Negotiations on acquisition terms are ongoing. Acquisition may occur by the end of 2003.

Estimated cost: \$140,000,000

Funding: SCC-Wetlands Recovery Project \$10,000,000
Wildlife Conservation Board \$130,000,000

Last updated: 8/26/2003

44. Ballona Wetlands Area C Assessment and Conceptual Restoration Study

Local Lead: To be determined

Tier 1

SCC Project Manager: Steve Horn, 510-286-4157, horn@scc.ca.gov

Perform an ecological assessment of Area C of the Ballona Wetlands and identify conceptual restoration alternatives for the site. Area C includes 73 acres of land located north of Ballona Creek and east of Lincoln Blvd. The northwest end of the property is connected to tidal flow from Santa Monica Bay through Marina del Rey. The study will survey and map existing resources on the property; perform a hydrologic assessment of the property, including tidal flow; identify opportunities and constraints for restoring and enhancing wetland resources on the site, including options for increasing tidal circulation; and provide recommendations for next steps.

The study will begin after the outcome of the current negotiations for acquisition of portions of Areas A and B is known. If additional property is acquired, those areas will be included in the study.

Status:

Estimated cost: \$100,000

Funding: SCC-Wetlands Recovery Project \$100,000

Cost Notes: Cost estimate is preliminary.

Last updated: 8/19/2003

45. Topanga Creek Restoration Program

Local Lead: RCD of the Santa Monica Mountains

Tier 1

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Implement the recommendations of the 2002 Topanga Creek Watershed and Lagoon Restoration Feasibility Study. This is a multi-phased program that will be implemented over several years and in partnership with multiple agencies, particularly State Parks. The primary goals of the program are to: 1. Restore habitat at identified priority locations in order to increase benefits to the endangered steelhead trout and tidewater goby, as well as other aquatic species of special concern in the watershed.

2. Improve passage opportunities for steelhead trout and extend the reach of creek providing suitable habitat for spawning and rearing.

3. Identify ways to improve sediment transport and delivery in order to enhance conditions in the creek and restore beach nourishment opportunities.

4. Improve water quality in all areas of the watershed where impairments have been identified.

5. Continue monitoring of water quality, sediment loads, streambank condition and target species populations (steelhead trout, tidewater gobies, western pond turtles, CA newts, etc.) in order to identify population trends related to restoration actions.

Currently (summer 2003), two studies are proposed: a feasibility study for removing the Rodeo Grounds road berm that is located approximately 400 meters upstream from Topanga Lagoon; and a hydrogeologic study of lower Topanga Creek to better understand the contribution of groundwater resources to the creek's flow.

Status: New Project

Estimated cost: \$180,000

Funding: SCC-Wetlands Recovery Project \$180,000

Cost Notes: Cost estimate is for two currently proposed studies only.

Last updated: 8/19/2003

Malibu Creek Lagoon and Watershed Program

- Malibu Lagoon Habitat Enhancement Program
- Cross Creek Road Fish Passage
- Upper Malibu Creek Feasibility Study (Rindge Dam)
- Cold Creek Riparian Acquisitions, Part 2
- La Sierra Riparian Acquisition

46. Malibu Lagoon Habitat Enhancement Program

Date Funded: 10/02

Local Lead: Heal the Bay

Tier 1

SCC Project Manager: Marc Beyeler, 510-286-4172, mbeyeler@scc.ca.gov

Enhance wetland habitats at Malibu Lagoon by enhancing tidal circulation and controlling water levels. The enhancements were recommended in the 1999 Malibu Lagoon enhancement plan prepared by UCLA. Heal the Bay will work with State Parks to implement the project. The project has two key elements.

The first part involves preparation of engineering designs to reconfigure tidal channels in two areas of Malibu Lagoon to enhance tidal circulation. The phase I area covers 1.2 acres on the east side of the lagoon. The phase II area includes 16.1 acres on the west side of the lagoon, but could be enlarged by another 11.4 acres if adjacent property is acquired. Channels in both areas have 90 degree turns and blind ends which inhibit tidal circulation. These areas of the lagoon often have low dissolved oxygen levels. The project would also develop an upland island on the east side of the lagoon to provide protected habitat for ground-nesting birds. Enhancements for the phase II area will be designed to be compatible with possible future expansion of the lagoon.

The second project element involves installation of an inflatable weir to control water levels in Malibu Lagoon at times when the lagoon mouth is closed to tidal action by a sand berm. The goal of the project would be to keep the water level in the lagoon below four feet above msl. Keeping the water level from rising higher would reduce leaching from nearby septic fields and would keep the lagoon's mudflats exposed. The lagoon would remain shut to tidal action until opened naturally by winter storms. When water levels in the closed lagoon exceed 4 feet msl, water would spill out onto the beach over the weir. During the rainy season, the weir would be deflated but would remain in place.

Status: An RFP to prepare the enhancement plan is being drafted. Planning is expected to begin in early 2004 and will take approximately 18 months to complete.

Estimated cost: \$575,000

Funding:	SCC-Wetlands Recovery Project	\$250,000
	Dept. of Parks and Recreation	\$40,000

Last updated: 8/29/2003

47. Cross Creek Road Fish Passage

Local Lead: Malibu Coastal Land Conservancy

Tier 2

SCC Project Manager: Marc Beyeler, 510-286-4172, mbeyeler@scc.ca.gov

Replace the Cross Creek Road arizona crossing of Malibu Creek which blocks steelhead passage with a one-lane bridge. The Cross Creek Road crossing is located approximately 0.4 miles upstream of the ocean and 2.1 miles downstream of Rindge Dam. It is the most significant steelhead barrier between the ocean and Rindge Dam. The road crossing connects the public portion of Cross Creek Road with private property across the stream.

The specific project will involve construction of a one-lane bridge spanning Malibu Creek at the location of the existing road crossing. A conceptual plan for the bridge is complete. The bridge would be approximately 100 feet long. The bridge height will allow streamflow to pass under the

bridge during typical baseflow conditions and up to the 3- to 5-year flood flow events. Higher flow would pass over the bridge, necessitating that the bridge railings bend over on a hinge so floating debris does not accumulate on the vertical railing. The homeowners association will own and maintain the bridge.

Status: Design plans and permits and permits are being finalized. Construction is expected to begin in Spring 2004 and be complete by the end of 2004.

Estimated cost: \$620,000

Funding:	SCC-Wetlands Recovery Project	\$70,000
	Serra Canyon Homeowner's Association	\$150,000
	SCC-Santa Monica Bay Restoration Project	\$400,000

Cost Notes: \$470K was requested from the WRP.

Last updated: 8/29/2003

48. Upper Malibu Creek Feasibility Study (Rindge Dam)

Date Funded: 4/03

Local Lead: California Department of Parks and Recreation

Tier 1

SCC Project Manager: Marc Beyeler, 510-286-4172, mbeyeler@scc.ca.gov

Conduct USACOE feasibility study for management of the Upper Malibu Creek watershed. The feasibility study will evaluate options for extensive restoration and enhancement of riparian and aquatic systems above Malibu Lagoon, including possible removal of Rindge Dam. Enhancements for endangered steelhead trout and riparian bird habitat would be a major emphasis of the study. The California Department of Parks and Recreation is the local sponsor for the project.

Status: Feasibility Study is underway and is scheduled for completion in Spring 2004. Current budget does not call for WRP funds, but the budget needs to be revised based on DPR's available funding. WRP funds will probably be needed in early 2003. UPDATE FROM MARC

Estimated cost: \$2,200,000

Funding:	SCC-Wetlands Recovery Project	\$368,800
	Dept. of Parks and Recreation (in-kind)	\$550,000
	Dept. of Parks and Recreation (cash)	\$150,000
	U.S. Army Corps of Engineers	\$1,100,000
	SCC-Santa Monica Bay Restoration Project	\$402,700

Cost Notes: Cost estimates are preliminary. A 50% non-federal match is needed.

Last updated: 8/19/2003

49. Cold Creek Riparian Acquisitions, Part 2

Local Lead: Mountains Restoration Trust

Tier 2

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Acquire an additional 107.7 acres of riparian and upland habitat along Cold Creek, a perennial tributary to Malibu Creek, for inclusion in the 1015-acre Cold Creek Preserve. The subject acquisitions will continue the 10-year acquisition strategy of the State Coastal Conservancy-funded Cold Creek Restoration Plan to acquire properties integral to the preservation of Cold Creek, a wild, pure and scenic stream in the Santa Monica Mountains National Recreation Area. Major project tasks for each acquisition will include: preparation of appraisal, completion of negotiations, compilation of funding sources, order of preliminary title report, opening of escrow, review of title issues, and closing of escrow.

The Cold Creek riparian corridor is located within a coastal watershed of the Santa Monica Mountains of Los Angeles County. Its pristine habitat has been designated a Significant Ecological Area and Environmentally Sensitive Habitat Area. Described as a natural sandstone basin, it

contains a free, perennial spring-fed stream shaded by a dense riparian canopy, and a diverse mixture of native vegetation types and sensitive natural resources. The project site contains 107.7 acres, including approximately 25 acres of existing wetland habitat along Cold Creek and 3200 feet of stream corridor. Primary vegetation communities include chaparral, coastal sage scrub (mainly covering south-facing aspects), grassland, oak woodland, and sycamore/oak/willow riparian woodland with obligate wetland plant species. Cold Creek runs from east to west, creating a critical wildlife corridor between Topanga State Park and Malibu Creek State Park that provides connectivity and habitat linkages for wildlife movement, dispersal, and re-colonization of core habitat areas following natural disturbances. Cold Creek is one of the few natural streams in the Santa Monica Mountains that has not been invaded by non-native aquatic species.

Status: 2 of the 10 parcels targeted for Phase 2 have been acquired. MRT is actively negotiating for 6 of the remaining parcels. Negotiations have not yet begun on 2 of the parcels.

Estimated cost:	\$2,592,670
Funding: SCC-Wetlands Recovery Project	\$1,192,670
Habitat Conservation Fund	\$600,000
Donated Land Value	\$800,000

Last updated: 8/27/2003

50. La Sierra Riparian Acquisition

Local Lead: Mountains Restoration Trust

Tier 2

SCC Project Manager: Deborah Ruddock, 510-286-4168, druddock@scc.ca.gov

Acquire approximately 90 acres of wetland, riparian and upland habitat that support La Sierra Lake in the Malibu Creek watershed. The acquisition includes a portion of the lake, four blue-line streams, and the seeps and ephemeral watercourses in the uplands that protect the water source for this three-acre, year-round lake. The primary vegetation communities found on the project site include riparian woodlands, dominated by coast live oak, California bay-laurel, and western sycamore. La Sierra Lake supports 35 obligate and associated wetland plant species, two aquatic mosses, and a rare vernal pool species which has only been reported one other time since 1891 in the Santa Monica Mountains. The project site is immediately downstream from a primarily undisturbed watershed that supports a series of oak, sycamore, willow, and mixed oak and bay riparian plant communities, and is adjacent to the county-designated La Sierra Canyon Significant Ecological Area.

An appraisal was completed for the property in 1998. With project funding, the appraisal and preliminary title report will be updated, title insurance acquired, and escrow opened. The Mountains Restoration Trust will own and manage the property as a nature preserve.

Status: MRT is working to secure adequate funding for the project.

Estimated cost:	\$3,000,000
Funding: Habitat Conservation Fund	\$220,000
Recovery Land Acquisition	\$450,000
L.A. County Oak Tree Fund	\$10,000
Mitigation Funds	\$200,000
Community Donations	\$50,000
Donated Land Value	\$500,000

Cost Notes: The project is located outside of the coastal zone, but within the Santa Monica Mountains Conservancy zone. WRP funding through the Coastal Conservancy may be possible through the mechanism of a Joint Powers Agreement.

Last updated: 8/27/2003

51. Solstice Creek Steelhead Enhancement Design Plans**Date Funded:** 3/01**Local Lead:** RCD of the Santa Monica Mountains**Tier** 2**SCC Project Manager:** Karen Bane, 510-286-0922, kbane@scc.ca.gov

Prepare engineering plans, permits, and environmental review documents for project to restore steelhead access to approximately 1.5 miles of Solstice Creek by removing barriers to passage. The project will remove all barriers to steelhead passage and also includes restoration of streambed and riparian habitat. Solstice Creek is located approximately one mile west of Malibu Creek in the Santa Monica Mountains. It has been identified as a primary candidate for recovery of the southern steelhead trout, a federal endangered species.

In a related effort, the National Park Service has removed one Arizona crossing on Solstice Creek.

Status: Engineering plans, permits, and environmental review documents should be completed by the end of 2004.

Estimated cost: \$394,000

Funding:	SCC-Wetlands Recovery Project	\$61,000
	Caltrans	\$66,250
	National Park Service	\$206,450
	Coastal Conservancy -- Prop 12	\$61,000

Cost Notes: Estimate \$420,000 total for implementation.

Last updated: 8/26/2003

Calleguas Creek and Watershed Program

- Arroyo Conejo/Arroyo Santa Rosa Riparian Habitat Project
- Lower Conejo Creek Acquisition

52. Lower Conejo Creek Acquisition**Local Lead:** To be determined.**Tier** 2**SCC Project Manager:** Peter Brand, 510-286-4162, brand@scc.ca.gov

Acquire approximately 80 acres along Conejo Creek for restoration of flood plain and riparian habitat. The property is on Conejo Creek at its confluence with Calleguas Creek. The project will also involve acquiring an agricultural and conservation easement for adjacent farm property. Future restoration activities would include widening the flood plain and allowing the creek to meander more freely in this area. Substantial removal of exotics would also be needed.

The Habitat Subcommittee of the Calleguas Creek Watershed Steering Committee has approved the acquisition as a priority, and a conceptual restoration plan is being prepared

Status: The Coastal Conservancy has made a prospective offer to the landowner. Acquisition is expected in early 2004.

Estimated cost: \$1,500,000

Funding:	SCC-Wetlands Recovery Project	\$750,000
	Coastal Conservancy-In lieu mitigation fees	\$600,000

Cost Notes: Cost estimate is preliminary. The Conservancy has approximately \$1.5 million of in-lieu mitigation fees available for acquisition and restoration of this property and other riparian restoration projects in the Calleguas watershed.

Last updated: 8/26/2003

53. Arroyo Conejo/Arroyo Santa Rosa Riparian Habitat Project

Local Lead: County of Ventura

Tier Incubator

SCC Project Manager: Not assigned yet.

Restore approximately 15 acres of riparian and floodplain habitat at the confluence of the Arroyo Santa Rosa and Arroyo Conejo, tributaries to Calleguas Creek. The preliminary plan for this project is to increase the floodplain width from 18 feet to up to 300 feet, in order to provide 15 additional acres of wetlands and riparian habitat along approximately 3000 linear feet of stream. The project design includes a stilling area at the confluence of the two streams which will reduce seasonal high flow rates and thus reduce the scouring of stream banks and the transport of silt and sediment downstream.

The project site is located on a portion of a 50-acre parcel owned by Ventura County's General Services Agency (Parks Department). The 2000 Calleguas Creek Watershed Wetland Restoration and Preservation Plan identified the project site as one of the ten priority sites that is most suitable for wetlands restoration in the watershed. Restoration of riparian habitat will increase potential habitat for several species of concern including the least Bell's vireo, the southwestern willow flycatcher, the California red-legged frog, and the southwestern pond turtle.

Status: New Project

Estimated cost: \$3,500,000

Funding:

Cost Notes: Cost estimate is very preliminary as project design needs significant refinement.

Last updated: 8/19/2003

54. Ormond Beach Wetlands Acquisition, Part 2

Local Lead: Coastal Conservancy

Tier 1

SCC Project Manager: Peter Brand, 510-286-4162, brand@scc.ca.gov

Acquire in fee or through a conservation easements, the privately owned portions of the Ormond Beach wetlands. In June 2002, the Coastal Conservancy acquired 265 acres formerly owned by Southern California Edison. Addition properties include:

MWD property. Approximately 309 acres are owned by the Metropolitan Water District (MWD) and City of Oxnard. MWD tentatively plans to build a pumping plant for a desalination plant on approximately 20 acres of the property. Wetlands could be restored on the unused portion of the property. MWD acquired the property in 1998 for \$10 million.

Adjacent agriculture property. Approximately 300 acres of adjacent agriculture serve as a buffer to the wetlands. Possible actions include purchasing an agricultural easement to ensure that area is not more intensively developed, or acquisition of fee title to restore wetland and grassland habitat.

Status: The Coastal Conservancy is negotiating with several landowners in the Ormond Beach area, including the City of Oxnard/MWD for acquisition of properties at the Ormond Beach wetlands.

Estimated cost: \$15,000,000

Funding: SCC-Wetlands Recovery Project \$5,000,000

Cost Notes: Cost estimates are very preliminary.

Last updated: 8/26/2003

55. Ormond Beach Wetlands Restoration Plan

Date Funded: 8/03

Local Lead: Coastal Conservancy

Tier 1

SCC Project Manager: Peter Brand, 510-286-4162, brand@scc.ca.gov

Prepare restoration plan for the 900-acre Ormond Beach wetlands area. The restoration plan will evaluate options for: restoring tidal action to portions of the property; restoring historic drainage

patterns disrupted by filling and tile drainage systems installed for agricultural use; and recreating a mix of tidal and seasonal wetlands with associated grasslands.

Status: The initial planning phase will commence in September 2003 and is expected to be complete in Fall 2004.

Estimated cost: \$600,000

Funding: U.S. Environmental Protection Agency \$75,000
Coastal Conservancy (HCF) \$525,000

Cost Notes: Cost estimate is very preliminary

Last updated: 8/26/2003

57. Hedrick Ranch Nature Area Restoration Project

Local Lead: Friends of the Santa Clara River

Tier 2

SCC Project Manager: Peter Brand, 510-286-4162, brand@scc.ca.gov

Implement restoration and enhancement activities on the Hedrick Ranch, a 223-acre riparian preserve along the Santa Clara River. Approximately 94 acres of the site lies in the upper floodplain terrace and the balance of 129 acres lies in the river channel active over the past 10 years. The project will implement the recommendations of the Hedrick Ranch Management and Restoration Plan under the stewardship of the Friends of The Santa Clara River. Key elements of the project include: stabilization of approximately 1000 linear feet of stream bank; removal of invasive plant species and re-establishment of native riparian vegetation on approximately 16 acres; preparation of additional technical studies, including a hydrogeology study and surveys of reptile and amphibian on the property.

Status: New Project

Estimated cost: \$649,000

Funding: SCC-Wetlands Recovery Project \$500,000

Cost Notes: \$649,000 was requested, but budget can be trimmed.

Last updated: 8/19/2003

56. Santa Clara River Parkway Acquisitions

Date Funded: 6/01

Local Lead: The Nature Conservancy

Tier 1

SCC Project Manager: Peter Brand, 510-286-4162, brand@scc.ca.gov

Acquire fee title or conservation easements to approximately 4,000 acres along the lower 15 miles of the Santa Clara River for inclusion in the Santa Clara River Parkway. Approximately 6,000 acres within the meander belt of the river and with upland connections into South Mountain have been mapped out for inclusion in the river parkway. Approximately 2,000 of these acres are already in public ownership. The initial acquisition program will focus on the estuary and lower river and then move upstream. Following acquisition, riparian and floodplain restoration projects will be pursued.

Status: Approximately 1400 acres have been acquired along 6 miles of the river. Negotiations for additional acquisitions are ongoing.

Estimated cost: \$9,410,411

Funding: SCC-Wetlands Recovery Project \$1,003,000
California Resources Agency (River Parkway) \$201,000
Coastal Conservancy--Prop 13 \$8,206,411

Cost Notes: Acquisition costs for the entire program are estimated at \$15-20 million.

Last updated: 8/27/2003

Ventura River Watershed Program

- Ventura River Arundo Removal Project
- Matilija Dam Removal Feasibility Study

58. Ventura River Arundo Removal Project

Date Funded: 10/03

Local Lead: Ventura County Watershed Protection District

Tier 2

SCC Project Manager: Karen Bane, 510-286-0922, kbane@scc.ca.gov

Remove Arundo donax from a 5-acre parcel adjacent to the Ventura River and revegetate with native riparian species. The project will serve as a demonstration project to evaluate Arundo removal methods and six different riparian revegetation treatments. Three replicates of the revegetation treatments will be done to ensure statistically reliable results. The Ventura County Watershed Protection District will serve as lead agency for the project on behalf of the Ventura County Arundo Task Force.

The Demonstration Project is located along the east bank of the Ventura River in Casitas Springs. The Ventura County Watershed Protection District and the City of Ventura own the project site. This portion of the Ventura River supports patches of mule fat scrub and willow-dominated riparian scrub within the broad river bottom. Upper floodplain terraces outside of the riverbanks support alluvial scrub vegetation accented by large sycamore and eucalyptus trees. The river substrate is primarily cobble and sand.

Status: The County is preparing a focused EIR for Arundo removal at the demonstration site. The EIR should be completed by October 2003. Implementation of the demonstration project can not begin until the EIR is complete. Implementation is expected to begin by the end of 2003.

Estimated cost:	\$326,000
Funding: SCC-Wetlands Recovery Project	\$132,000
Dept. of Fish and Game	\$63,500
Natural Resource Conservation Service	\$67,000
Ventura County Watershed Protection District	\$63,500

Last updated: 8/26/2003

59. Matilija Dam Removal Feasibility Study

Date Funded: 10/00

Local Lead: Bureau of Reclamation

Tier 1

SCC Project Manager: Neal Fishman, 510-286-4175, nfishman@scc.ca.gov

Prepare feasibility study for removal of Matilija Dam on the Ventura River. Study is headed by the U.S. Bureau of Reclamation. The purpose of the project is to remove barriers to steelhead passage (including Matilija Dam), restore natural hydrologic regimes on the river, and restore riparian and wetland habitat. The study will include a complete profile of the sediments behind the dam, characterization of the historic and current channel of the river, and a hydrological analysis. Once these analyses are completed, they will be used to further refine the potential methodologies for removing the dam and moving the sediment. Environmental studies will then be undertaken which will lead to a decision on specific projects.

Matilija Dam is a relatively large concrete arch dam. It is nearly 200 feet high from bedrock to its highest point. It spans over 600 feet at the top. Built in 1947, the dam was intended for both water supply and flood control. Since its construction the reservoir behind the dam has filled with sediments.

Status: Study is underway and is scheduled for completion at the end of 2004.

Estimated cost:	\$2,335,000
Funding: SCC-Wetlands Recovery Project	\$750,000

U.S. Geological Service	\$200,000
U.S. Bureau of Reclamation	\$200,000
U.S. Army Corps of Engineers or Bureau of Rec	\$150,000
County of Ventura (inkind)	\$35,000
Coastal Conservancy	\$1,000,000

Cost Notes: The WRP also contributed \$200,000 for pre-feasibility studies.

Last updated: 8/19/2003

60. Carpinteria Creek Restoration Project

Date Funded: 9/02

Local Lead: Community Environmental Council

Tier 1

SCC Project Manager: Mary Travis, 510-286-5137, mtravis@scc.ca.gov

Remove steelhead passage barrier and enhance riparian habitat along Carpinteria Creek. Several projects to improve access to steelhead habitat and enhance riparian habitat have been identified in the Carpinteria Creek Watershed Management Plan. WRP funding will be targeted to replacing an Arizona crossing that blocks steelhead passage with a bridge, enhancing approximately 2.5 acres of surrounding riparian habitat, and stabilizing 500 feet of creek bank. The project site is a 17-acre parcel located in the coastal zone about 2.5 miles upstream from where the creek empties into the Pacific.

Carpinteria Creek is located in coastal Santa Barbara County, about 10 miles southeast of the City of Santa Barbara and 16 miles northwest of the City of Ventura. It begins in the Santa Ynez Mountains at an elevation of about 4,700 feet and drains a watershed of about 15 square miles, characterized by steep hillsides and canyons. Biologists for the California Department of Fish & Game believe that Carpinteria Creek offers the best opportunity among all South Coast urban streams for restoring significant steelhead runs in the next few years.

Status: Final restoration plans are being prepared and environmental review is underway. The planning phase should be complete by the end of 2003.

Estimated cost: \$89,300

Funding:	SCC-Wetlands Recovery Project	\$70,000
	Cachuma RCD	\$4,000
	County of Santa Barbara	\$7,800
	Watershed Coalition	\$7,500

Cost Notes: Total project cost with implementation is estimated at \$412,000. Total WRP contribution is estimated at \$300,000. The funding above is for planning and has already been granted.

Last updated: 8/26/2003

61. Carpinteria Salt Marsh, Basin 1 Implementation

Date Funded: 8/03

Local Lead: Land Trust of Santa Barbara County

Tier 1

SCC Project Manager: Janet Diehl, 510-286-4164, jdiehl@scc.ca.gov

Restore and enhance approximately 17 acres of wetlands and 19 acres of transitional and upland habitat at Carpinteria Salt Marsh. The project site includes the Basin 1 and South Marsh areas of Carpinteria Salt Marsh. Project elements include: deepen existing tidal connections and establish new ones, including cutting through or installing culverts in existing berms; remove non-invasive exotic vegetation and replant with native vegetation; and restore and improve tidal flushing by modifying the tidal inlet to the ocean, which has been altered by past flood control measures. The proposed project will result in an increase of tidal channels, salt marsh, brackish marsh, transition, and willow scrub habitat types. The project is designed to be compatible with SBCFCD's planning for flood control channel and berm modifications and future maintenance plans.

The Carpinteria Salt Marsh is located in southeastern Santa Barbara County adjacent to the City of Carpinteria. The project site is 36 acres within a 230-acre salt marsh in the coastal plain of Carpinteria, and is surrounded by urban development, agricultural fields, US Highway 101, a railroad, and single-family homes. Basin I is approximately 24 acres of wetlands, uplands, and creek channels, and South Marsh is approximately 12 acres of degraded marsh. Natural upland habitats surrounding the marsh are limited due to the extent of urban development in the area. Much of the upland habitats are disturbed and dominated by non-native species. Pickleweed is the predominant wetland plant. Small patches of coastal scrub and willows can be found at scattered locations around the upper edges of the marsh. A small section of brackish marsh featuring alkali balrush exists in Basin I.

Status: Construction is expected to begin in early 2004 and be completed within one year.

Estimated cost:	\$1,864,000
Funding:	
SCC-Wetlands Recovery Project	\$1,045,000
University of California Natural Reserve System	\$3,000
NOAA - Community Based Restoration Program	\$55,000
U.S. Fish and Wildlife Service	\$550,000
County in kind	\$25,000
County of Santa Barbara CREF	\$50,000
Land Trust of Santa Barbara County	\$80,000
Community Donations	\$56,000

Last updated: 8/26/2003

63. Santa Barbara Urban Streams and Wetlands Restoration Project

Date Funded: 10/00

Local Lead: Community Environmental Council

Tier 2

SCC Project Manager: Marc Beyeler, 510-286-4172, mbeyeler@scc.ca.gov

Implementation of the San Jose Creek Restoration Plan and preparation of an enhancement plan for four Santa Barbara County watersheds. This project is the first in a multi-phased effort to enhance coastal urban creeks in southern Santa Barbara County. In the first part of the project, recommendations from the San Jose Creek restoration plan will be implemented. This includes preparation of a CEQA document, permits, and final design and engineering plans. The project also involves preparation of an enhancement plan for the Goleta Slough, Arroyo Burro, Mission Creek and Carpinteria Creek watersheds. This plan will focus on ways to address watershed issues including sedimentation and erosion, water quality, riparian and wetland habitat, and flood management.

Status: Project is underway and should be complete at the end of 2004.

Estimated cost:	\$280,000
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Funding:	SCC-Wetlands Recovery Project	\$280,000
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Last updated: 8/29/2003

64. Mission Creek Museum Area Restoration Plan

Date Funded: 9/02

Local Lead: Community Environmental Council

Tier 2

SCC Project Manager: Mary Travis, 510-286-5137, mtravis@scc.ca.gov

Prepare restoration plan for removal of invasive species, revegetation, implementation of stormwater best management practices, and installation of interpretive trails and exhibits along Mission Creek. The project would integrate habitat restoration with stormwater management and public education. Its key components are: removal of invasive weeds in the understory and revegetation with native plants on 5 acres of streambank and riparian woodland; rehabilitation of

vegetated bioswales and installation of storm drain filters; removal of impervious asphalt next to the creek and its replacement with vegetative buffers and porous pavement; and development and installation of interpretive trails and exhibits to explain the value of the restoration work, creek stewardship, and stormwater BMPs.

The project site encompasses approximately 13 acres along Mission Creek, about four miles upstream from the creek's outfall. The property is owned by the Santa Barbara Museum of Natural History, St. Mary's Retreat House, and St. Anthony's Seminary. The primary vegetation communities are riparian and oak woodlands, with some riparian scrub on the southern bank. The native canopy is well developed with western sycamore and coast live oak as the dominant species. Steelhead trout frequent a pool in the creek on the grounds of the Museum. The project is sponsored by the Mission Creek Restoration Partnership, an unincorporated, community-based collaborative effort by residential and institutional landowners, nonprofit organizations, and agencies of the City and County of Santa Barbara.

Status: Plan is underway and should be complete by Spring 2004.

Estimated cost: \$120,000

Funding:	SCC-Wetlands Recovery Project	\$110,000
	County of Santa Barbara	\$7,800
	SB Natural History Museum	\$2,200

Cost Notes: Preliminary cost estimate for planning and implementation is \$1 million dollars. CEC received \$625,000 from the SWRCB (Prop. 13 for implementation). The Natural History Museum will contribute a total of \$128K to project costs.

Last updated: 8/26/2003

62. Summerland/Greenwell Preserve Restoration

Date Funded: 9/01

Local Lead: Summerland Greenwell Preserve

Tier 2

SCC Project Manager: Mary Travis, 510-286-5137, mtravis@scc.ca.gov

Restore 2-acres of riparian habitat at the Summerland/Greenwell Preserve. The preserve sits at the confluence of three small drainages that are relatively undeveloped. It is located about one-half-mile from the ocean, in the coastal zone. The project site contains a spring-fed perennial creek. A restoration plan has been prepared for the site. Restoration activities will include planting native trees, installing irrigation, and stabilizing the hillside. There are also two historic buildings located on the preserve. Property is owned by the County of Santa Barbara, and leased to the Summerland Citizens Association.

Work done to date includes preparation of landscape plan, demolition of a large industrial garage, removal of asphalt, restoration of natural topography around pond, and removal of non-native vegetation. All of the work was completed with volunteer labor.

Status: Project implementation should be complete by spring 2004.

Estimated cost: \$181,737

Funding:	SCC-Wetlands Recovery Project	\$40,000
	California Resources Agency	\$40,000
	Santa Barbara County-CREF	\$20,000
	Summerland/Greenwell Preserve	\$81,827

Cost Notes: Approximately \$120,000 has already been spent (from County and Summerland Citizens Assoc.). Of the remaining work, approximately \$38,500 is needed to complete the riparian restoration.

Last updated: 8/26/2003

65. Arroyo Burro Restoration at Las Positas

Local Lead: City of Santa Barbara

Tier Incubator

SCC Project Manager: Not assigned yet.

Develop a riparian restoration plan for approximately 2000 feet of Arroyo Burro Creek in the City of Santa Barbara. The project site is located approximately 0.25 miles above Arroyo Burro Estuary. The proposed project will solicit public input, establish a community restoration working group, develop conceptual design plans, perform a constraints and feasibility analysis, and complete preliminary design plans for a creek restoration project on Arroyo Burro. Potential project components include:

- *Eradication of nonnative plants and revegetation with native riparian and upland plant species.
- *Removal of all riprap, concrete, and large trash within the creek channel including 200 feet of pipe and wire revetment.
- *Removal/redesign of a riprap grade control structure.
- *Biotechnical stabilization of approximately 2,000 linear feet of creek bank.
- *Construction of a trail with interpretive signage.
- *Construction of a wetland/storm water retention basin and biofilter and/or expansion and relocation of the creek channel.

The project site includes two acres of wetland habitat and four acres of upland habitat, and is bordered by Arroyo Burro on the west and Las Positas Road on the east. Urban and agricultural development within the watershed have significantly impacted the creek corridor. The creek habitat in this area is highly degraded due to past land disturbance and urban development within the watershed. The creek is deeply incised (up to 25 feet), the banks are experiencing significant erosion, and the creek corridor is dominated by non-native species such as *Arundo donax*. The creek also has poor water quality due to upstream urban runoff.

Status: New Project

Estimated cost: \$270,000

Funding:	SCC-Wetlands Recovery Project	TBD
	City of Santa Barbara	\$180,000

Cost Notes: Also providing a \$10,000 WRP small grant to remove invasive species from a nearby property.

Last updated: 8/19/2003

66. Goleta Slough Tidal Restoration Study

Date Funded: 10/02

Local Lead: Santa Barbara Municipal Airport

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

The objective of the Goleta Slough Tidal Restoration Study is to obtain experimental data that can adequately address the FAA's concerns and resolve the bird-strike issue at Goleta Slough (see below). This will be achieved by introducing tidal action to one or more of the airport's basins in Goleta Slough and monitoring the results for two to three years, with monitoring focused primarily on bird use. Control basins will also be monitored. Participating agencies will develop the study plan, including specific restoration actions, monitoring protocols, study duration, and the methodology for assessing the bird-strike hazard. A key element of the study, required by the FAA, will be that if at any time the monitoring data indicates that tidal circulation has caused an increase in the bird-strike hazard, the study will be halted and the basin(s) will be returned to former conditions (i.e., non-tidal).

The FAA has expressed concern that restoration of tidal action to basins that are now seasonally ponded would increase the bird strike hazard at Santa Barbara Airport. Preliminary studies predict that although restoring tidal action might increase annual bird use in the basins, it would not increase, and might even decrease the bird strike hazard. This conclusion is based on the fact that in general shorebirds using tidal wetlands are smaller and lower-flying than the waterfowl which currently use the seasonal ponds. The FAA is opposed to implementing any tidal restoration

projects at the slough until this theory has been empirically shown to be correct.

Status: The Feasibility Study for the Goleta Slough Tidal Restoration Study was completed in March 2002. Environmental review and permitting are expected to be complete by the end of 2003. The experimental study is expected to begin in mid-2004.

Estimated cost: \$400,000

Funding: SCC-Wetlands Recovery Project \$108,000
County of Santa Barbara \$200,000

Cost Notes: Study design, environmental review, and permitting will cost \$150K.
Cost estimates are very preliminary.

Last updated: 8/19/2003

67. UCSB Campus Lagoon Enhancements

Date Funded: 8/03

Local Lead: University of California, Santa Barbara

Tier 2

SCC Project Manager: Mary Travis, 510-286-5137, mtravis@scc.ca.gov

Enhance approximately 2 acres of salt marsh and sand dune habitat adjacent to the UCSB Campus Lagoon, and prepare restoration plans for three additional areas around the lagoon. The project has two main components. The first involves enhancement of approximately 0.25 acres of salt marsh habitat and surrounding dune habitat at the "West Depressions" area of UCSB Campus Lagoon. Primary activities include removal of exotic species, revegetation, and trail and road improvements. The second component is preparation of final engineering plans for enhancements at

* San Nicholas Wetlands -- 3 acres total, 2 acres of wetland

* Lagoon Island -- 22 acres total, 7 acres of wetland, 5 of which would be created vernal pools

* Campus Point -- 10 acres, 2 acres of wetlands

Status: Funding was approved for the planning portions of the project in August 2003. Planning will begin in Fall 2003 and is expected to be complete by the end of 2004.

Estimated cost: \$232,870

Funding: SCC-Wetlands Recovery Project \$100,000

Cost Notes: \$232,870 was originally requested from WRP, but WMG recommended no more than \$150,000 for the project. Only the planning portions of the project have been funded.

Last updated: 8/27/2003

68. Devereux Slough/Ellwood Mesa Regional Plan

Date Funded: 9/01

Local Lead: County of Santa Barbara

Tier 2

SCC Project Manager: Mary Travis, 510-286-5137, mtravis@scc.ca.gov

Complete amendments to the Devereux Slough/Ellwood Mesa Regional Plan for UCSB-, County- and privately-owned land. The project includes a park master plan to protect resources on the County's property. It will also evaluate the potential for transfer of development rights from the privately-owned property, which supports higher value natural areas, to the County-owned parcel. The proposed project includes implementation of a restoration project on the County owned property. Estimated cost of the restoration project is \$50,000.

Ellwood Mesa comprises a major portion of the Devereux Creek watershed approximately ¼ mile upstream of Devereux Slough, and supports a diverse ecosystem of vernal pools, riparian habitat, native grasslands, and one of the three largest Monarch butterfly over-wintering sites west of the Rockies.

Status: Draft plan has been released to the public. Project is now on hold until the newly incorporated City of Goleta has evaluated the plan.

Estimated cost:		\$349,000
Funding:	SCC-Wetlands Recovery Project	\$110,000
	California Resources Agency	\$75,000
	Coastal Commission	\$24,000
	County of Santa Barbara	\$90,000

Last updated: 8/27/2003

69. Lower Refugio Creek Restoration

Local Lead: Land Trust for Santa Barbara County

Tier 2

SCC Project Manager: Not assigned yet.

Implement the lower Refugio Creek Riparian Restoration Plan developed with a small grant from the WRP. The project will be undertaken in cooperation with the Cachuma RCD and the three private landowners in the watershed. Lower Refugio Creek supports a diverse riparian woodland with sycamore, cottonwood, willow, oak, poplar, bay laurel and California pepper trees and an understory of mixed natives and invasive weeds. The creek also supports one of the largest Arundo donax infestations on the Gaviota Coast. The primary land use adjacent to the creek is avocado and citrus orchards, with 1200 feet of fenced pasture on the Freeman Ranch running along the west bank. Listed species expected to be found in the riparian woodland of Refugio Creek include California red-legged frog, southern steelhead, least Bell's vireo and the southwestern willow flycatcher.

The project will improve the wildlife habitat along one and one-half miles of the creek by: (a) removing more than 100 separate patches of Arundo and smaller areas of invasive castor bean, ivy, false tobacco and Kudzu vine; (b) stabilizing 1,300 linear feet of eroding creek bank primarily with willow fascines and planted berms; (c) installing engineered erosion control measures including buried drop pipe, recontouring and planting in four side drainages that are head cutting into adjacent orchards; and (d) revegetating 17,000 square feet of the riparian corridor with approximately 900 native trees, shrubs and understory plants. The project will also include up to four years of post-installation monitoring, re-treatment and replacement planting to ensure a successful outcome

Status: New Project

Estimated cost:		\$157,000
Funding:	SCC-Wetlands Recovery Project	\$112,000
	USFWS Grant	\$25,000
	Landowner in-kind contribution	\$20,000

Last updated: 7/16/2003

70. Southern California Creek Daylighting Program

Local Lead: To be determined

Tier Incubator

SCC Project Manager: Chris Kroll, 510 286-4169, ckroll@scc.ca.gov

Develop a long-term regional strategy, including a funding strategy, for approaching creek daylighting in southern California. Restoration of watershed processes through resurrection of buried creeks is an important element of any long-term strategy to restore the region's waterways. The daylighting strategy will recognize that neither the Wetlands Recovery Project, or any state agency, can be expected to provide the bulk of funding for a comprehensive creek daylighting program. To be successful, local funding sources will need to be developed. The WRP Creek Daylighting Program will work with local partners to develop a vision for how to proceed and build support for that vision through education and outreach, and through implementation of demonstration projects.

Upon completion of the regional strategy, the project will also develop a more detailed analysis of daylighting opportunities in the Los Angeles basin and evaluate potential demonstration projects. Potential demonstration projects include the daylighting of a portion of North Branch Creek, a tributary to the Arroyo Seco. The WRP has awarded a small grant to North East Trees to continue development of the North Branch Creek (Stream Spirit Rising) project.

Status: New Project

Estimated cost: Not available.

Funding:

Cost Notes: Cost estimate is not available yet.

Last updated: 8/19/2003

73. WRP Small Grants Program 03-04

Date Funded: 8/03

Local Lead: Environment Now

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Provide grants up to \$30,000 for restoration and enhancement projects consistent with the goals of the Wetlands Recovery Project. The small grants program gives priority to projects with a significant education or community involvement element. The grant selection committee includes a representative from each of the county task forces. Selected projects include:

- *Arroyo Burro Watershed Enhancement Project
- *Creek Watchers Stream Team
- *Piedra Blanca Stream Habitat Restoration and Youth Employment Program
- *Ormond Beach Wetlands Restoration
- *Ballona Wetlands WOW Team
- *Forrestal Nature Preserve Wetland Restoration
- *Stream Spirit Rising
- *San Gabriel River Restoration at Whittier Narrows
- *THINK RIVER! Integrated Youth Watershed Education Program
- *Miracles of a Marsh- from wetlands to wildlife
- *Improved Handicapped Access to all Habitat Types at the Bolsa Chica Ecological Reserve
- *Restoration of Native Habitat at Shipley Nature Center
- *Community-based Habitat Restoration Program at Batiquitos Lagoon
- *San Dieguito River Creekside Restoration
- *Wetland Avengers, Restoration and Education at Sweetwater Marsh

Status: Project scopes of work are being finalized. Most project will commence in Fall 2003.

Estimated cost: \$267,908

Funding: Earth Island Institute \$267,908

Last updated: 8/19/2003

71. WRP Small Grants Program 01-02

Date Funded: 6/01

Local Lead: Environment Now

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Provide grants up to \$30,000 for restoration and enhancement projects consistent with the goals of the Wetlands Recovery Project. The small grants program gives priority to projects with a significant education or community involvement element. The grant selection committee includes a representative from each of the county task forces. Selected projects include:

- * Refugio Creek Arundo Removal Project
- * Carpinteria Creek Steelhead Barrier Removal Project
- * Goleta Slough Borgaro Parcel Transaction
- * Santa Barbara Native Plant Nursery

- * Ventura River Watershed Monitoring Project
- * Sespe Creek Interpretive Program
- * Nicholas Canyon Creek Stream Restoration
- * San Joaquin Marsh Interpretive Docks
- * Cottonwood Creek Enhancement
- * Lopez Canyon Streambed Restoration

Status: 6 of the 10 projects have been completed. The remaining projects are underway and will be completed by June 2004.

Estimated cost: \$250,000

Funding: SCC-Wetlands Recovery Project \$250,000

Last updated: 8/19/2003

72. WRP Small Grants Program 02-03

Date Funded: 9/02

Local Lead: Environment Now

Tier 2

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Provide grants up to \$30,000 for restoration and enhancement projects consistent with the goals of the Wetlands Recovery Project. The small grants program gives priority to projects with a significant education or community involvement element, and a primary objective is to build the capacity of local groups to undertake restoration projects. The grant selection committee includes a representative from each of the county task forces. Selected projects include:

- * Devereux Slough North Shore Margin Restoration
- * Goleta Slough High Marsh Enhancement
- * Creek Watchers - Latino Outreach Project
- * Wildwood Creek Restoration Project
- * Nicholas Canyon Creek Restoration, Part 2
- * Resource Enhancement Program in Cold Creek
- * Orange County Wetlands Map and Outreach Program
- * Agua Hedionda Educational Signs Project
- * Wetland Restoration & Education, Mouth of the San Diego River
- * Mission Valley Preserve Restoration and Stewardship Project

Status: Projects are underway. Most should be complete by summer 2004.

Estimated cost: \$280,000

Funding: SCC-Wetlands Recovery Project \$30,000
Earth Island Institute \$250,000

Last updated: 8/19/2003

74. WRP Technical Assistance and Program Administration

Date Funded: 1/03

Tier Incubator

SCC Project Manager: Trish Chapman, 510-286-0749, tchapman@scc.ca.gov

Provide technical assistance to WRP Governing Board, Managers Group, and Science Advisory Panel to further the goals of the Recovery Project. Potential uses of technical assistance funds include:

- *Subregional planning documents
 - identify project opportunities in a subregion
 - assist in setting subregional acquisition and restoration priorities
 - develop comprehensive exotics species control programs (e.g., Arundo, Caulerpa, etc.).
- *Pre-project evaluations, including resource surveys, appraisals, Phase I hazmat analyses, etc.
- *Feasibility studies for issues that extend beyond a single project.
- *Science Panel staff support and investigations of specific technical issues.
- *Symposium planning and organization.

- *Preparation of the WRP Regional Plan.
- *Other technical assistance needs that arise.

Funds will be used on an as-needed basis with the approval of the Wetlands Managers Group.

Status: Project is ongoing.

Estimated cost: \$1,500,000

Funding: SCC-Wetlands Recovery Project \$1,500,000

Last updated: 8/27/2003